		DEPAR	STATE (	OF UTAH ATURAL RES	OURCES	A	F MENDED REP	FORM 3	1
		DIVI	SION OF OIL,	GAS AND M	IINING				
APPLIC	CATION FOR PI	ERMIT TO D	RILL			1. WELL NAME and NUMB LC Tr	<b>ER</b> ibal 11-18D-	56	
2. TYPE OF WORK  DRILL NEW WELL	REENTER P&A \	WELL [	DEEPEN WELL (	) )		3. FIELD OR WILDCAT	DESIGNATED		
4. TYPE OF WELL Oil We	l Coalbed	Methane Well	: NO			5. UNIT or COMMUNITIZA	TION AGREE	MENT NA	ME
6. NAME OF OPERATOR	BERRY PETROLEUI	M COMPANY				7. OPERATOR PHONE	3 999-4044		
8. ADDRESS OF OPERATOR	8 West Rt 2 Box 7		ut IIT 84066			9. OPERATOR E-MAIL	o@bry.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)		1. MINERAL C	WNERSHIP			12. SURFACE OWNERSHIP			
20G0005500  13. NAME OF SURFACE OWNER (if box 12 = 'fee		FEDERAL	) INDIAN (I	) STATE (	) FEE (_)	FEDERAL INDIAN  14. SURFACE OWNER PH		TE (III)	FEE ()
	DWR								
15. ADDRESS OF SURFACE OWNER (if box 12 =	'fee')					16. SURFACE OWNER E-I	MAIL (if box	12 = 'fee')	
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		8. INTEND TO	COMMINGLE RMATIONS	PRODUCTIO	N FROM	19. SLANT			
Ute Indian Tribe		YES (S	Submit Commin	gling Applicat	ion) NO	VERTICAL DIRECT	IONAL 📵	HORIZOI	NTAL 🔲
20. LOCATION OF WELL	FOO	TAGES	Q	TR-QTR	SECTION	TOWNSHIP	RANGE		MERIDIAN
LOCATION AT SURFACE	808 FSL	1412 FWL		SESW	18	5.06	6.0 W		U
Top of Uppermost Producing Zone	1869 FSL	1813 FWL		NESW	18	5.0 S	6.0 W		U
At Total Depth	1926 FSL	1829 FWL		NESW	18	5.0 S	6.0 W		U
21. COUNTY  DUCHESNE	2	2. DISTANCE	TO NEAREST L	EASE LINE (F		23. NUMBER OF ACRES IN	I DRILLING U	JNIT	
	2	5. DISTANCE Applied For D	TO NEAREST V Drilling or Com	VELL IN SAME preted)	POOL	26. PROPOSED DEPTH MD: 72	77 TVD: 7	115	
27. ELEVATION - GROUND LEVEL	2	8. BOND NUM	IBER	2		29. SOURCE OF DRILLING			
7920			RLBO	005647		WATER RIGHTS APPROVA	13-12400	- APPLICA	BLE
			asing, and						
String Hole Size Casing Size Surf 13.5 8.625	Length	Weight 32.0	Grade &	Thread ST&C	Max Mud Wt	. Cement Type V	Sacks 350	Yield 3.82	Weight 11.0
3011 13.3 8.023	200	32.0	3-33	3100	9.5	Class G	400	1.15	15.8
Prod 7.875 5.5	0 - 7277	17.0	N-80	LT&C	9.5	Type V	200	3.82	11.0
						Premium Plus	470	1.7	13.1
			ATTACI	HMENTS	<u> </u>	<u> </u>		<u> </u>	l
,									
VERIFY THE FOLLOWING	G ARE ATTACH	IED IN ACCO	ORDANCE W	ITH THE UT	AH OIL AND GAS	CONSERVATION GENE	RAL RULE	:S 	
WELL PLAT OR MAP PREPARED BY LICEN	ISED SURVEYOR	OR ENGINEER	ł	<b>✓</b> CON	IPLETE DRILLING P	LAN			
AFFIDAVIT OF STATUS OF SURFACE OWN	ER AGREEMENT	(IF FEE SURF <i>i</i>	ACE)	FOR	M 5. IF OPERATOR	S OTHER THAN THE LEASE	OWNER		
DIRECTIONAL SURVEY PLAN (IF DIRECTI	ONALLY OR HOR	IZONTALLY D	RILLED)	<b>№</b> торо	OGRAPHICAL MAP				
NAME Krista Mecham	TITLE Regu	ulatory Permitt	ting Tech			PHONE 435 722-13	325		
SIGNATURE	<b>DATE</b> 04/1	2/2013				EMAIL kmm@bry.co	om		
API NUMBER ASSIGNED 43013521400000		APPR	OVAL						

#### BERRY PETROLEUM COMPANY LC Tribal 11-18D-56

Section 18, T5S, R6W, U.S.B.&M.

SHL: 808' FSL & 1412' FWL (SE/4SW/4) BHL: 1926' FSL & 1829' FWL (NE/4SW/4)

Duchesne County, Utah

#### ONSHORE ORDER NO. 1

#### **DRILLING PROGRAM**

### A,B Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals

FORMATION	DRILL DEPTH *	DRILL DEPTH*	Measured
	@ SHL (TVD)	@ BHL (TVD)	Depth
TT . 1	0.2		0.0
Uintah	0'	0	
Green River	1302'	1363'	1332
Green River Upper Marker	1986'	2017'	2055'
Mahogany	2567'	2598'	2669'
Tgr3	3602'	3631	3762'
*Douglas Creek	4372'	4402	4558'
*Black Shale	5017'	5052	5208'
*Castle Peak	5302'	332'	5493'
*Uteland Butte	5651	<b>36</b> 80'	5842'
* Wasatch	5886	5915'	6077'
*CR-6 (base U Wasatch)	7086'	7115'	7277'
TD	7086'	7115'	7277'
Base of Moderate Saline	7711'	7609'	
Water			

\*PROSPECTIVE PAY

proposed bottom hole location. By drilling directionally, Berry Petroleum Company will improve field development efficiency by potentially combining multiple surface hole locations together. This will significantly reduce total surface disturbance plus combine the use of access roads and existing pipelines.

Furthermore, Berry hereby certifies that it is the sole working interest owner with 460 feet of the entire directional well bore and the remainder of the Ute Tribal section.

Berry Petroleum – Drilling Procedure LC Tribal 11-18D-56 4/10/2013

#### C Pressure Control Equipment: (Schematic Attached)

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc. A  $3\underline{M}$  system will be utilized. The attached diagram depicts the use of an annular in conjunction with double rams. However, an annular, double rams or both may be used depending on the drilling rig contracted.

- Chart recorders will be used for all pressure tests.
- Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a representative upon request.
- Mud volumes will be monitored visually.
- Upper and Lower Kelly cocks will be utilized.
- A gas buster will be utilized, if necessary.

Depth Intervals	BOP Equipment
0 – 2000'	No Pressure Control
2000' – 7277'	11" 3000# Ram Type BOP 11" 3000# Annular BOP

#### **D,E Proposed Casing and Cementing Program**

Purpose	Depth	Hole Size	Casing S	Size Type	Connection	Weight
Surface	2000'	13(50"	8.625	J of K-55	ST&C	32#
Parasite String	1900'	13.50"	1.90"	J-55	IJ	2.76#
Production	7277'	7.875"	5-1/2"	N-80 or Lida 8	30 LT&C	17#
Surface		Type &	Amount			
0'-2000'			additives		opg (yield = $3.8$	n Type 5 cement with 2 cuft/sx), calculated
Receite			Tail with additives	approximately s mixed at 15.8 p	400 sx Premiur opg (yield = 1.1 red: 150sx of Pr	remium cement with
Parasite						

We will run an air injection collar +/- 1900' that contains a check valve (delta  $P = +/- 3500 \, \text{psi}$ ) for our air injection into the annulas of the DP X 8-5/8" surface casing during production hole drilling. Once we drill our production hole section with aerated mud we will case and cement as usual. We will then abandon our parasite string with cement to assure future isolation of that string.

Berry Petroleum – Drilling Procedure LC Tribal 11-18D-56 4/10/2013

Production	Type & Amount
0' – 3500'	Lead: +/- 200 SX Premium Type V + additives or similar slurry with a minimum weight of 11.0 #/gal and approximate yield of 3.82 cuft/sx
3500' – 7277'	Tail: +/- 470 SX Premium Lite Tail + additives or similar slurry with a minimum weight of 13.1 #/gal and approximate yield of 1.70cuft/sk.

For production casing, actual cement volumes will be determined from the caliper log plus a minimum of 15% excess.

#### F Drilling Fluids Program

Interval	Weight	Viscosity	Fluid Loss	Remarks
0' – 2000'	8.4 – 9.5	27	NC	DAP Mud
2000'-7277'	8.4 – 9.5	27	NC	DAP Water

#### **G** Evaluation Program

HRI-GR-SP with SDL-DSN-PF Logging Program: Preserve samples from all 10' dry cut samples: Sampling: k to TD. Preserve samples From all show in Surveys: As decimed ne Mud Logger: As deemed nec **Drill Stem Tests:** s deem ed necessary Cores: deemed necessary

#### **H** Anticipated Abnormal Pressures or Temperatures

No abnormal ten per tures or pressures or other hazards are anticipated.

hallow was and/or water flows are possible below surface casing.

Maximum anticipated bottom hole pressure equals approximately 3595 psi\* and maximum anticipated surface pressure equals approximately 1995\*\*psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### I Anticipated Starting Dates and Notification of Operations

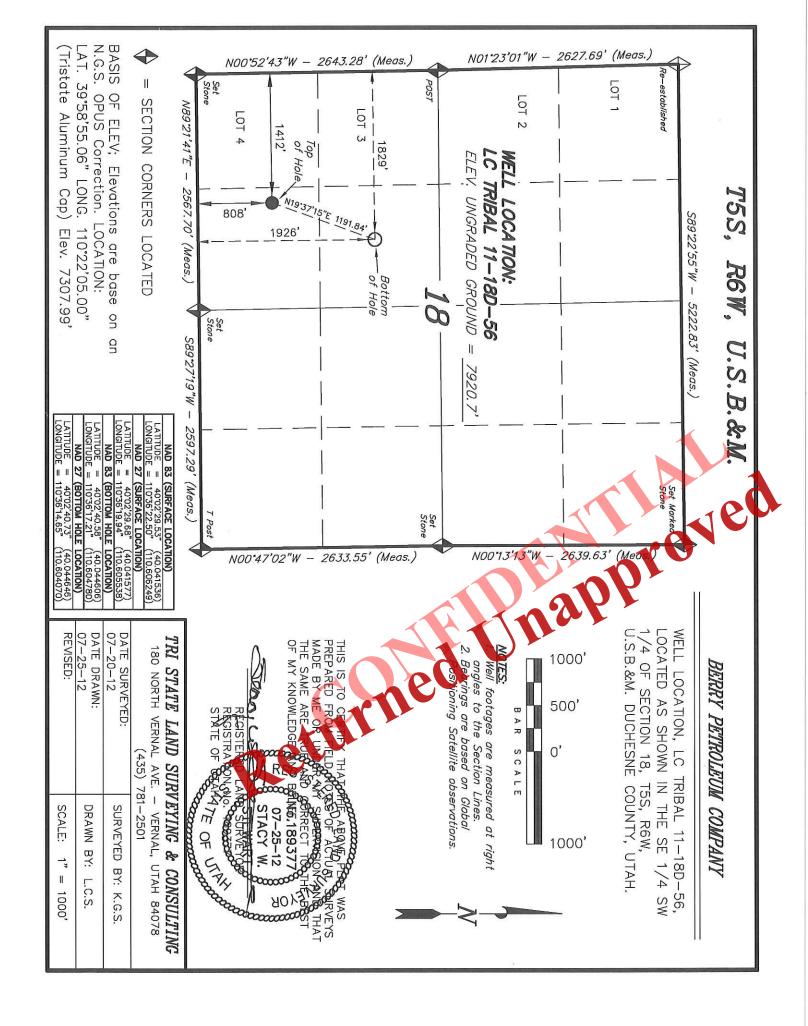
Drilling Activity:

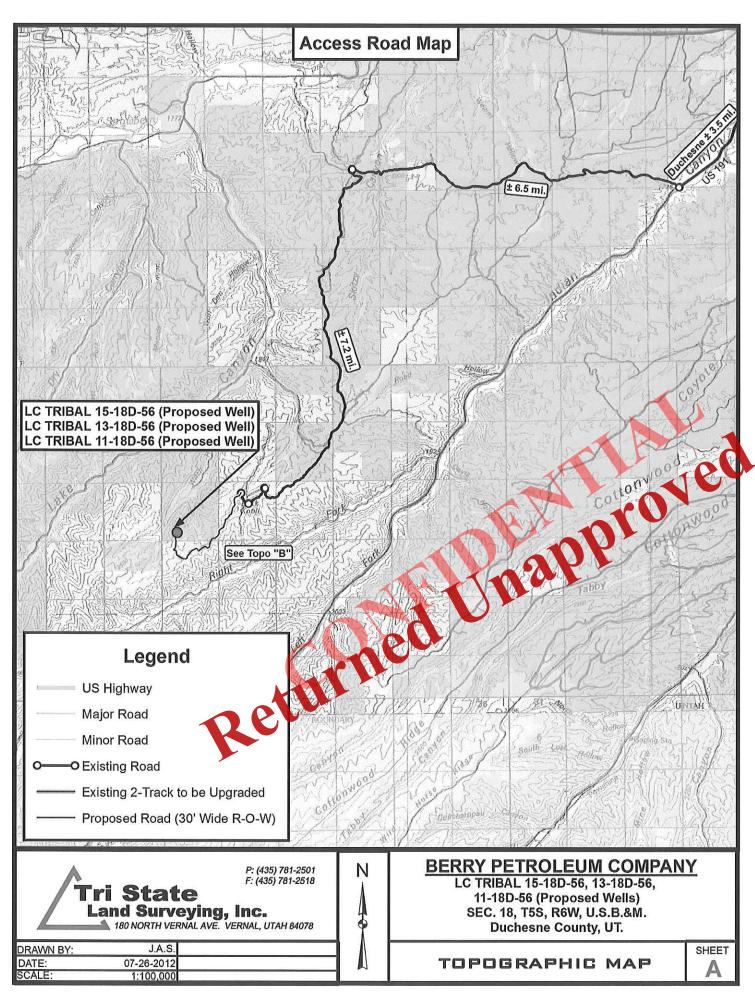
Anticipated Commencement Date: Upon approval of the APD. Drilling Days: Approximately 10 days. Completion Days: Approximately 7 days.

Berry Petroleum – Drilling Procedure LC Tribal 11-18D-56 4/10/2013

<sup>\*</sup>Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

<sup>\*\*</sup>Maximum surface pressure = A - (0.22xTD)

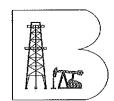




### **Berry Petroleum Company**

**Duchesne Co., UT (UT27C)** Sec.18-T5S-R6W

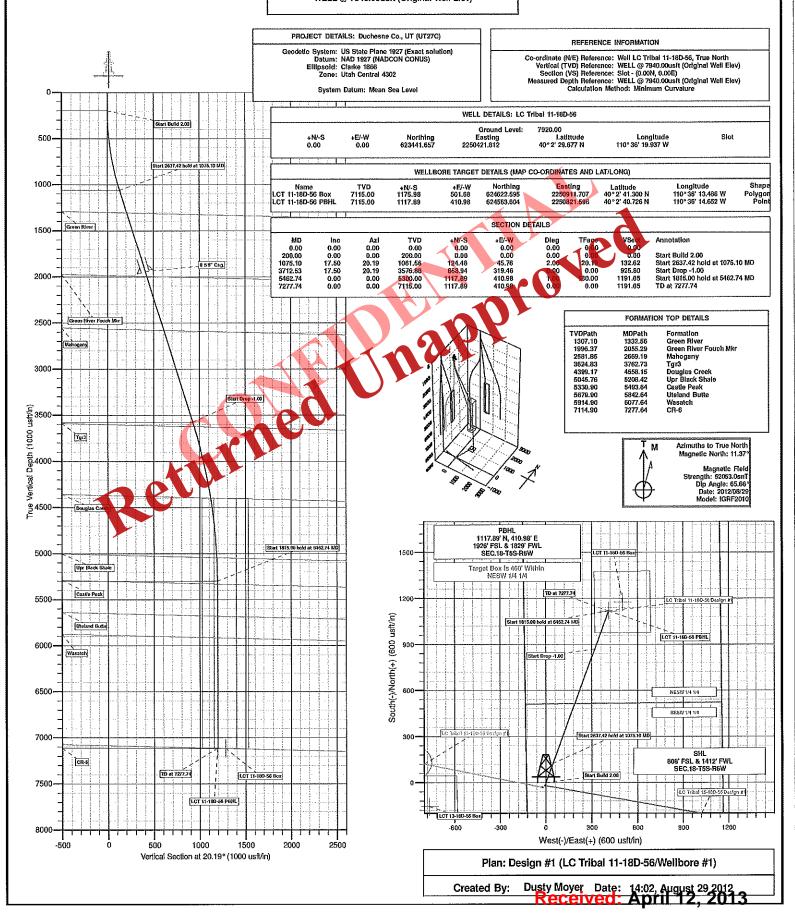
Standard Planning Report
29 August, 2012





Project: Duchesne Co., UT (UT27C)
Site: Sec.18-T5S-R6W
Well: LC Tribal 11-18D-56
Wellbore: Wellbore #1
Design: Design #1
Latitude: 40°2'29.677 N
Longitude: 110°36' 19.937 W
Ground Level: 7920.00
WELL @ 7940.00usft (Original Well Elev)

## Archer



# Λrcher

#### Archer Planning Report



Database: Company: Project:

**EDMD8BW** 

Berry Petroleum Company

Duchesne Co., UT (UT27C) Sec.18-T5S-R6W

Site: LC Tribal 11-18D-56 Well: Wellbore: Wellbore #1 Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well LC Tribal 11-18D-56

WELL @ 7940,00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

Minimum Curvature

Project

Duchesne Co., UT (UT27C)

Map System: Geo Datum:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

Utah Central 4302

System Datum:

Mean Sea Level

Map Zone:

Site Sec.18-T5S-R6W

Site Position: From:

Position Uncertainty:

Lat/Long

Northing: Easting: Slot Radius:

626,027.074 usft 2,253,483.037 usft 13-3/16"

Latitude: Longitude:

Grid Convergence:

40° 2' 54.924 N 110° 35' 40.240 W

0.58 °

Well

Well Position

LC Tribal 11-18D-56

+N/-S +E/-W

-2,554.29 usft -3,087.24 usft

0.00 usft

Northing: Easting:

623,441.657 usft 2,250,421.812 usft

Latitude

40° 2' 29.677 N

**Position Uncertainty** 

0.00 usft

Wellhead Elevation:

ound

110° 36' 19,937 W 7.920,00 usft

Wellbore

Magnetics

Wellbore #1

Design #1

Model Name Sample Date

Dip Angle (°)

Field Strength

(nT)

IGRF2010

65.66

52,053

Design

Audit Notes:

Version:

Vertical Section:

0.00

PLAN

Tie On Depth:

0.00

0.00 Direction

> (°) 20.19

Depth From (TVD) +E/-W +N/-S (usft) (usft) (usft)

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (*/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0,00	0.00	0.00	0,00	0.00	0.00	0,00	0.00	0.00	
200.00	0.00	0.00	200,00	0.00	0.00	0.00	0.00	0.00	0.00	
1,075.10	17.50	20.19	1,061.56	124.48	45.76	2.00	2,00	0.00	20,19	
3,712.53	17.50	20.19	3,576.88	868.94	319.46	0.00	0.00	0.00	0.00	
5,462.74	0.00	0.00	5,300.00	1,117.89	410.98	1.00	-1.00	0.00	180.00	
7,277.74	0,00	0,00	7,115.00	1,117,89	410,98	0.00	0,00	0.00	0.00 l	.CT 11-18D-56 PBI

0.00

### Archer Planning Report



Database: Company: Project:

Site:

EDMDBBW

Berry Petroleum Company Duchesne Co., UT (UT27C)

Sec.18-T5S-R6W LC Tribal 11-18D-56

Well: LC Tribal 11-Wellbore: Wellbore #1 Design: Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

True

Minimum Curvature

gn;	Design #1						ne Westers and a services of the services.		
ned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0,00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2		0.00	100.00	5,55				\ \	
200.00	0,00	0.00	200.00	0,00	0.00	0.00	0.00	0,00	0,00
300.00	2,00	20.19	299.98	1.64	0.60	1.75	2.00	2.00	0.00
400.00	4.00	20.19	399.84	6.55	2.41	6.98	2,00	2.00	0.00
									0.00
500.00	6.00	20,19	499.45	14.73	5.42	15,69	2.00 2.00	2 00	0.00
600.00	8.00	20,19	598.70	26,17 40,85	9.62 15.02	27.88 43.52	2.00	2100	0,00
700.00	10.00	20.19	697.47	58.76	21.60	62.60	2.00	2,00	0.00
800.00	12.00	20.19	795.62 893.06	79,87	29.36	85.10	200	2.00	0.00
900.00	14,00	20,19				05, 10			
1,000.00	16,00	20.19	989.64	104,16	38.29	110.98	2.00	2.00	0.00
Start 2637.42	2 hold at 1075.10	MD				_11			
1,075.10	17.50	20.19	1,061.56	124.48	45.76	132.62	2.00	2.00	0.00
1,100.00	17.50	20.19	1,085.30	131.50	48.35	140 11	0.00	0.00	0.00
1,200.00	17.50	20.19	1,180.67	159.73	38.72	170.18	0.00	0.00	0.00
1,300.00	17.50	20.19	1,276.04	187.96	69.10	200.26	0.00	0.00	0.00
O Dt		_	7						
Green River		20.40	1 207	197.15	72,48	210,05	0.00	0.00	0,00
1,332.56	17,50	20,19	1,307.10	216,18	79.48	230,33	0.00	0.00	0.00
1,400.00	17,50	20,19	1,371,41	244,41	89.86	260,41	0.00	0.00	0.00
1,500.00	17.50	20.19 20.19		272,64	100.23	290,48	0.00	0.00	0.00
1,600.00	17,50 17,50	20.19	1,562.15 1,657.52	300.87	110.61	320,55	0.00	0.00	0,00
1,700.00	17.50								
1,800.00	17,50	20,19	1,752.90	329.09	120.99	350,63	0.00	0.00	0.00
1,900.00	17.50	20,19	1,848.27	357.32	131.37	380.70	0.00	0.00	0.00
8 5/8" Csg.	_4								
2,000.00	17.50	20.19	1,943.64	385.55	141.74	410.78	0.00	0.00	0.00
Green River	Fouch Mkr								
2,055.29	17,50	20,19	1,996.37	401.15	147.48	427,41	0.00	0.00	0,00
2,100.00	17.50	20.19	2,039.01	413.77	152.12	440,85	0.00	00,0	0,00
2 200 00	17.50	20,19	2,134.38	442.00	162,50	470,92	0.00	0.00	0.00
2,200.00	17.50	20.19	2,229.75	470.23	172.87	501.00	0.00	0.00	0.00
2,300.00 2,400.00	17.50	20.19	2,325.12	498.45	183,25	531.07	0.00	0.00	0.00
2,500.00	17.50	20.19	2,420.49	526.68	193,63	561.15	0,00	0.00	0.00
2,600.00	17,50	20,19	2,515.86	554.91	204.01	591.22	0.00	0.00	0.00
2,000.00		25,5	_,_,_,		••- •	<del>-</del>			
Mahogany									
2,669.19	17,50	20.19	2,581.85	574.44	211.19	612,03	0.00	0,00	0.00
2,700.00	17,50	20.19	2,611.23	583.13	214.38	621,29	0.00	0.00	0.00
2,800.00	17.50	20,19	2,706.60	611.36	224.76	651.37	0.00	0.00	0,00
2,900.00	17.50	20,19	2,801.97	639.59	235.14	681.44	00,0	0.00	0.00
3,000.00	17.50	20,19	2,897.34	667.82	245,52	711.52	0,00	0.00	0.00
3,100,00	17.50	20.19	2,992.71	696.04	255,89	741.59	0.00	0.00	0.00
3,200,00	17.50	20.19	3,088,08	724.27	266,27	771.66	0.00	0.00	0.00
3,300,00	17.50	20.19	3,183.45	752.50	276.65	801.74	0.00	0,00	0.00
3,400,00	17,50	20.19	3,278.83	780,72	287.03	831.81	0.00	0,00	0.00
3,500.00	17,50	20.19	3,374.20	808,95	297.40	861,89	0.00	0.00	0.00
3,600.00	17.50	20.19	3,469.57	837,18	307.78	891.96	0.00	0.00	0.00
3,700.00	17.50	20.19	3,564.94	865,40	318.16	922.03	0.00	0.00	0.00
•		20.15	0,004.04	555,40	310.10	322,00	0.00	5.55	
Start Drop -		00.40	9 570 00	900.04	319.46	925.80	0.00	0.00	0.00
3,712.53	17.50	20.19	3,576.88	868.94	319.46	823.0U	0.00	0,00	0.00
Tgr3				000.01	00150	0.40.00	4.00	4.00	0.00
3,762.73	17.00	20.19	3,624.83	882.91	324,59	940.69	1.00	-1.00	0.00
3,800.00	16.63	20.19	3,660,51	893.03	328.32	951.47	1.00	-1.00	0.00

### Archer Planning Report



Database; Company: Project: EDMDBBW

Berry Petroleum Company Duchesne Co., UT (UT27C)

Sec,18-T5S-R6W

Well: Wellbore: Design:

Site:

LC Tribal 11-18D-56 Wellbore #1 Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev)
WELL @ 7940.00usft (Original Well Elev)

True

Minimum Curvature

d Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate (°/100usft)	Turn Rate (°/100usft)
(usft)	(°)	<b>{</b> °}	(usft)	(usft)	(usft)	(usft)	(°/100usft)	( ) innually	Trivoasii
3,900.00	15.63	20.19	3,756.57	919.10	337.90	979.25	1.00	-1.00	0.00
4,000.00	14.63	20.19	3,853.10	943.60	346.90	1,005.34	1.00	-1.00	0.00
4,100.00	13.63	20.19	3,950.08	966.50	355,33	1,029.75	1.00	-1.00	0.00
4,200.00	12.63	20.19	4,047.46	987.82	363,16	1,052.46	1.00	-1.00	0.00
4,300.00	11.63	20.19	4,145.23	1,007.54	370.41	1,073.47	1.00	-1.00	0.00
4,400.00	10.63	20.19	4,243,35	1,025.65	377.07	1,092.77	1.00	-1.00	0.00
4,500.00	9.63	20.19	4,341.79	1,042.16	383,14	1,110.35	1.00	-1.00	0.00
Douglas Cree	ek				<i>\(\lambda\)</i>				
4,558.15	9,05	20.19	4,399,17	1,051.01	386,39	1,119,79	1.00	.00	0.00
4,600.00	8,63	20.19	4,440,52	1,057.04	388,61	1,126,22	00	-1.00	0.00
4,700.00	7,63	20.19	4,539.52	1,070.31	393,49	1,140.35	100	-1.00	0.00
4,800.00	6.63	20.19	4,638.74	1,081.96	397.77	1 15276	1.00	-1.00	0.00
4,900.00	5.63	20.19	4,738.17	1,091.98	401.46	1, 163.43	1.00	-1.00	0.00
5,000.00	4.63	20.19	4,837.77	1,100.36	404.54	172.37	1.00	-1.00	0.00
5,100.00	3.63	20.19	4,937.51	1,107,12	407.02	179.57	1.00	-1.00	0.00
5,200.00	2.63	20.19	5,037.36	1,112,24	408.91	1,185.02	1.00	-1.00	0.00
Upr Black Sh		00.40	2 2 4 7 7 7	1000	400.04	4.405.40	4.00	4.00	0.00
5,208.42	2.54	20.19	5,045.76	112.60	409.04	1,185.40	1.00	-1.00	0.00
5,300.00	1.63	20.19	5,137.29	1,115.72	410.19	1,188.74	1.00	-1.00	0.00
5,400.00	0.63	20.19	5,237.27	1,117.57	410,86	1,190.70	1.00	-1.00	0.00
	hold at 5462.74			4 447 00	440.00	4 404 05	4.00	4.00	0.00
5,462.74	0.00	0.00	5,300,00	1,117.89	410.98	1,191.05	1.00	-1.00	0.00
Castle Peak									
5,493.64	0.00	0.00	5,330.90	1,117.89	410.98	1,191.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,337.26	1,117.89	410.98	1,191.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,437.26	1,117.89	410.98	1,191.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,537.26	1,117.89	410.98	1,191.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,637.26	1,117.89	410.98	1,191.05	0.00	0.00	0.00
Uteland Butt	. —		,	,					
5,842,64	0.00	0.00	5,679.90	1,117.89	410.98	1,191.05	0.00	0.00	0.00
_					410,98	1,191.05	0,00	0.00	0.00
5,900.00	0,00	0.00	5,737.26	1,117.89	410.98	1,191,05	00.0	0.00	0.00
6,000.00	0.00	0.00	5,837.26	1,117.89	410,50	1, 191,05	0.00	0.00	0.00
Wasatch	0.00	0.00	E 044 00	4 447 00	440.00	4 404 05	0.00	0.00	0.00
6,077.64	0,00	0.00	5,914.90	1,117.89	410.98	1,191.05	0.00	0.00	00.0
6,100.00	0.00	0.00	5,937.26	1,117.89	410.98	1,191.05	0.00	0.00 0.00	0.00
6,200.00	0.00	0.00	6,037.26	1,117.89	410.98	1,191.05	0.00		
6,300.00	0.00	0.00	6,137.26	1,117.89	410.98	1,191.05	0.00	0,00	0.00
6,400.00	0.00	0.00	6,237,26	1,117.89	410,98	1,191.05	0.00	0.00	0.00
6,500.00	0.00	0.00	6,337.26	1,117.89	410,98	1,191.05	0.00	0,00	0.00
6,600.00	0.00	0.00	6,437.26	1,117.89	410,98	1,191.05	0.00	0.00	0.00
6,700.00	0.00	0.00	6,537.26	1,117.89	410,98	1,191.05	0,00	0.00	0.00
6,800.00	0.00	0.00	6,637.26	1,117.89	410.98	1,191.05	0,00	0.00	0.00
6,900.00	0.00	0.00	6,737.26	1,117.89	410.98	1,191.05	0.00	0,00	0.00
7,000.00	0.00	0.00	6,837.26	1,117.89	410.98	1,191.05	0,00	0.00	0.00
7,100.00	0.00	0.00	6,937.26	1,117,89	410.98	1,191.05	0.00	0.00	0.00
7,100.00	0.00	0.00	7,037.26	1,117.89	410.98	1,191.05	0,00	0.00	0.00
•			.,						
CR-6		* **	7,,,,,,,	4 447 00	440.00	4 404 07	5.50	0.00	0.00
7,277.64	0.00	0.00	7,114.90	1,117.89	410.98	1,191.05	0.00	0.00	0,00
TD at 7277.74									_
7,277.74	0.00	0.00	7,115.00	1,117.89	410.98	1,191.05	0,00	0,00	0.00

### Archer Planning Report



Database: Company: Project: Site: Well:

Wellbore:

Design:

EDMDB8W Berry Petroleum Company Duchesne Co., UT (UT27C) Sec.18-T5S-R6W LC Tribal 11-18D-56 Wellbore #1

Design #1

Local Co-ordinate Reference: TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

True

Minimum Curvature

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LCT 11-18D-56 PBHL - plan hits target cent - Point	0.00 er	0.00	7,115.00	1,117.89	410.98	624,563.604	2,250,821.596	40° 2' 40,726 N	110° 36' 14,652 W
LCT 11-18D-56 Box	0.00	0.00	7,115.00	1,175.98	501.68	624,622.595	2,250,911.707	40° 2' 41.300 N	110° 36' 13,486 V
- plan misses target o	center by 107.	.70usft at 72	77.74usft MI	O (7115.00 TV	'D, 1117.89 N,	410.98 E)			
- Polygon Point 1			7,115.00	198.15	-186.64	624,818.87	2,250,723.09		
Point 2			7,115.00	201.25	181.45	624,825.65	2,251,091.14		•
Point 3			7,115.00	-197.48	186.01	624,426.98	2,251,099.68	1	
Point 4			7,115.00	-201.08	-181.29	624,419.71	2,250,732.44		
Point 5			7,115.00	198.15	-186.64	624,818.87	2,250,723,09		

	2,000.00	1.943.64	8 5/8" Csg.	W.,
	(usft)	(usft)		
	Depth	Depth		
N	Measured	Vertical		
Casing romis				
Casing Points			1.1	

8-5/8 11
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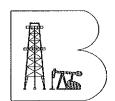
	Measured Depth (usft)	Vertical Depth (usft)	Name Lithology	Dip (°)	Dip Direction (°)
and trapid State	1,332.56	1,302.00	Green River	1.39	20.19
	2,055.29	1,966.00	Green River Fouch Mkr	1.39	20,19
	2,669,19	2,567.00	Mahogany	1.39	20.19
	3,762.73	3,602.00	Tgr3	1,39	20.19
	4,558.15	4,372.00	Douglas Creek	1.39	20,19
	5,208.42	5,017.00	Upr Black Shale	1.39	20.19
	5,493.64	5,302.00	Castle Peak	1.39	20.19
	5,842.64	5,651,00	Uteland Butte	1.39	20.19
	6,077.64	5,886.00	Wasatch	1.39	20.19
	7,277.64	7,086.00	CR-6	1.39	20.19

Ninte 3

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	Comment
200.00	200.00	0.00	0.00	Start Build 2.00
1,075.10	1,061.56	124.48	45.76	Start 2637.42 hold at 1075.10 MD
3,712.53	3,576.88	868.94	319.46	Start Drop -1.00
5,462,74	5,300.00	1,117.89	410.98	Start 1815.00 hold at 5462.74 MD
7,277.74	7,115.00	1,117.89	410.98	TD at 7277,74

### **Berry Petroleum Company**

Anticollision Report **Duchesne Co., UT (UT27C)** 



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#### Archer Anticollision Report



Company: Project:

Berry Petroleum Company Duchesne Co., UT (UT27C)

Sec.18-T5S-R6W Reference Site:

0.00 usft Site Error:

LC Tribal 11-18D-56 Reference Well: Well Error: 0.00 usft Reference Wellbore Wellbore #1

Design #1 Reference Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Output errors are at Database:

Offset TVD Reference:

Well LC Tribal 11-18D-56

WELL @ 7940,00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

Minimum Curvature

2.00 sigma **EDMDBBW** Offset Datum

Reference Design #1

NO GLOBAL FILTER: Using user defined selection & filtering criteria Filter type:

Interpolation Method: Stations

Unlimited Depth Range:

Results Limited by: Warning Levels Evaluated at:

Maximum center-center distance of 9,999.98 usft

2.00 Sigma

Error Model: **ISCWSA** 

Closest Approach 3D Scan Method:

Error Surface: Elliptical Conic

Not applied Casing Method:

Survey Tool Program Date 08/29/12

> To From (usft)

> > 0.00

(usft)

Survey (Wellbore)

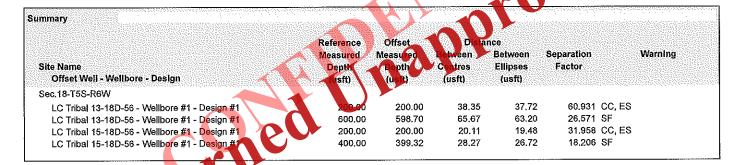
7,277.74 Design #1 (Wellbore #1)

**Tool Name** 

MWD

Description

MWD



Offset De		Sec.18	S-F-W	LC Triba	l 13-18D-	56 - Wellbor	e #1 - Design #	**************************************		energependenen energependenen			Offset Site Error;	0.00 usft
Survey Prog		D Offse		Semi Maior					Dist	Inca			Offset Well Error:	0,00 usfl
Refer Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore	Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
0,00	0.00	0.00	0.00	0.00	0.00	-144.78	-31.33	-22.12	38,35					
100.00	100,00	100.00	100.00	0.09	0.09	-144.78	-31.33	-22.12	38.35	38.17	0.18	213,259		
200.00	200,00	200.00	200.00	0.31	0,31	-144.78	-31.33	-22.12	38.35	37.72	0.63	60.931 CC	, E8	
300,00	299,98	299.98	299.98	0,54	0.54	-165,60	-31,33	-22.12	40,03	38,95	1.09	36,867		
400,00	399.84	399.84	399.84	0.78	0.76	-167.23	-31.33	-22.12	45,12	43.58	1.55	29.169		
500.00	499.45	499,45	499,45	1.02	0,99	-169,26	-31,33	-22,12	53,66	51.65	2,01	26,712		
600.00	598.70	598,70	598,70	1.30	1,21	-171.20	-31.33	-22,12	65.67	63.20	2.47	26,571 SF		
700.00	697.47	697.47	697.47	1.62	1.43	-172.85	-31.33	-22.12	81.17	78.23	2.94	27.654		
800,00	795,62	795.62	795.62	1,99	1.65	-174.17	-31,33	-22.12	100.13	96,73	3.40	29.450		
900.00	893.06	893.06	893,06	2.42	1.87	-175.20	-31.33	-22.12	122,53	118.67	3.87	31.690		
1,000.00	989.64	989,64	989,64	2.90	2.09	-176.00	-31.33	-22.12	148,34	144.01	4,34	34,220		
1,075.10	1,061.56	1,061,56	1,061,58	3.29	2,25	-176,48	-31.33	-22,12	169.95	165.26	4,69	36,250		
1,100.00	1,085.30	1,085.30	1,085.30	3.43	2.30	-176.63	-31.33	-22.12	177.42	172,61	4.81	36.900		
1,200,00	1,180.67	1,180.67	1,180,67	3.99	2.52	-177.12	-31,33	-22.12	207,46	202,16	5.29	39,187		
1,300.00	1,276.04	1,276.04	1,276.04	4.57	2.73	-177.48	-31.33	-22.12	237,50	231.71	5.79	41.053		
1,400.00	1,371.41	1,371,41	1,371,41	5.14	2,95	-177,77	-31.33	-22,12	267.55	261.27	6,28	42,602		
1,500.00	1,486.78	1,466,78	1,466.78	5,72	3,16	-177,99	-31.33	-22,12	297.61	290,83	6.78	43.904		
1,600.00	1,582.15	1,562.15	1,562.15	6.31	3.38	-178.18	-31,33	-22.12	327.66	320.39	7.28	45.013		
1,700,00	1,657,52	1,657.52	1,657,52	6,89	3.59	-178.33	-31,33	-22.12	357.73	349,94	7.78	45.969		
1,800,00	1,752.90	1,752.90	1,752,90	7.48	3.81	-178.46	-31.33	-22.12	387.79	379.50	8.29	46.799		
1,900,00	1,848.27	1,848.27	1,848,27	8.07	4.02	-178,57	-31.33	-22,12	417,85	409.06	8.79	47.527		
2,000,00	1,943.64	1,943.64	1,943.64	8.66	4.23	-178,67	-31.33	-22,12	447,92					
2,100.00	2,039.01	2,039.01	2,039,01	9.25	4.45	-178.75	-31.33	-22.12	477.99	468.18	9.81	48.742		

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#### Archer Anticollision Report



Company: Project: Reference Site:

Site Error:

Reference Well:

Berry Petroleum Company Duchesne Co., UT (UT27C)

LC Tribal 11-18D-56

Sec.18-T5S-R6W 0,00 usft

Well Error: 0,00 usft Wellbore #1 Reference Wellbore Reference Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference: Survey Calculation Method:

Output errors are at

Database:

Offset TVD Reference:

Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

Minimum Curvature

2.00 sigma EDMDB8W Offset Datum

Offset De Survey Progi		1969aan barrettare European al	T5S-R6W	- LC Tribal	13-18D-	56 - Wellbo	re #1 - Design	#1				Š	Offset Site Error: Offset Well Error:	0.00 us 0.00 us
Reference Measured	ence Vertical	Offse Measured	it Vertical	Semi Major Reference	Axis Offset	Highside	Offset Wellbo	re Centre	Dist Between	ance Between	Minimum	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	Manung	
2,200.00	2,134.38	2,132.82	2,132.82	9.84	4.68	-178.79	-31.27	-22.39	508.11	497.80	10.31	49.288		
2,300.00	2,229.75	2,223.42	2,223.34	10.43	4.85	-178.45	-30.56	-26,03	538,88	528.08	10.80	49,888		
2,400.00	2,325.12	2,313.04	2,312,60	11,03	5,04	-177.70	-29.05	-33,77	570,54	559.24	11.30	50,506		
2,500,00	2,420.49	2,400.00	2,398,77	11,62	5,24	-176,66	-26.81	-45.19	603.21	591.41	11.80	51,110		
2,600,00	2,515.86	2,487.90	2,485,24	12.21	5,46	-175,33	-23.79	-60.65	637.08	624.74	12.34	51,624		
2,700.00	2,611.23	2,572.51	2,567.70	12.81	5.70	-173.83	-20.17	-79.19	672.35	659.44	12,91	52.073		
2,800.00	2,706,60	2,654.88	2,647.10	13.40	5.97	-172.21	-15.97	-100.67	709,21	695,69	13,52	52.4.15		
2,900.00	2,801.97	2,734.80	2,723.18	13.99	6.28	-170.52	-11.27	-124,71	747,87	733,69	14-18	52,736	_	
3,000.00	2,897.34	2,812.13	2,795.74	14.59	6,62	-168.78	-6.14	-150.91	788.48	773.59	14.89	52.965		
3,100,00	2,992.71	2,886,74	2,864,68	15,18	7,01	-167.03	-0.67	-178,91	831.18	815.5	15,65	53,121		
3,200,00	3,088.08	2,966,18	2,937.04	15.78	7.48	-165.16	5.62	-211.08	875.86	859.36	1.50	53.096		
3,300,00	3,183.45	3,060.94	3,014.13	16.37	8.03	-163.31	12.38	-245.65	921.54	904.12	17.42	52,915		
3,400.00	3,278,83	3,135,70	3,091.23	16.97	8.60	-161.63	19.14	-280,22	967,97	949,61	18,36	52,730		
3,500.00	3,374.20	3,220.46	3,168.32	17.56	9.21	-160.09	25 <mark>,9</mark> 0	-3/4/19	1,015,05	995.74	19.32	52.549		
3,600,00	3,469.57	3,305.23	3,245,42	18.16	9,83	-158,68	32,66	-349,37	1,062.70	1,042.41	20.29	52.384		
3,700.00	3,564.94	3,389,99	3,322,51	18.75	10,48	-157.38	39.42	-383.94	1,110.83	1,089.57	21.27	52.234		
3,712,53	3,576.88	3,400,61	3,332.17	18,83	10,56	-157.22	40.27	-388.27	1,116.90	1,095.51	21.39	52,219		
3,800,00	3,660,51	3,474,97	3,399,81	19.28	11,14	156.36	45.20	-418.60	1,158.87	1,136,61	22,25	52,077		
3,900.00	3,756.57	3,560.52	3,477.62	19.73	11.82	155.42	53.02	-453.50	1,205.91	1,182,70	23.21	51.959		
4,000.00	3,853,10	3,646.60	3,555.91	20.15	12.51	-154,54	59,89	-488,61	1,251,93	1,227,77	24.16	51.814		
4,100.00	3,950.08	3,739.23	3,640,22	20.56	13.24	-153,62	67,26	-526.28	1,296.88	1,271.75	25.13	51.602		
4,200.00	4,047.46	3,849.86	3,741.84	20.95	13,99	-152.63	75.64	-569.18	1,339.67	1,313.55	26.13	51.279		
4,300,00	4,145.23	3,964,07	3,848,04	21,32	14,69	-151,77	83,71	-610.41	1,379.78	1,352.72		50,992		
4,400,00	4,243,35	4,081.75	3,958,73	21.66	15.38	-151.02	91.37	-649,62	1,417.03	1,389.07	27,96	50,679		
4,500,00	4.341.79	4,202,76	4,073.77	21.99	16.04	-150.36	98.57	-686.42	1,451,26	1,422,44	28,82	50,349		
4,600.00	4.440.52	4,326.69	4,192.96	22,29	16.66	-149.81	105,22	-720,45	1,482,32	1,452.68	29.64	50.015		
4,700.00	4,539,52	4,453.93	4,316.03	22.57	17.24	-149.34	111,26	-751,31	1,510.07	1,479.67	30,40	49.673		
4,800.00	4,638.74		4,442.66	22,83	17.77	-148,95	116,60	-778,65	1,534.38	1,503.28		49.323		
4,900.00	4,738,17	4,715.58	4,572,46	23,07	18.24	-148.64	121.20	-802.14	1,555.16	1,523.40		48.973		
5,000,00	4,837.77	4,849,56	4,704,97	23.28	18,65	-148,40	124.98	-821.46	1,572.29	1,539,95	32,34	48,623		
5,100.00	4,937,51	4,985.13	4,839.69	23.47	19.01	-148.24	127,89	-836,36	1,585,71	1,552,85		48,264		
5,200.00	5,037,36	5,121.92	4,976.06	23.64	19.30	-148.15	129.90	-846.63	1,595.34	1,562,04	33.30	47.902		
5,300.00	5,137,29	5,259.48	5,113.51	23.78	19.52	-148,12	130,97	-852,11	1,601,16	1,567,47	33,69	47.532		
5,400.00	5,237.27	5,383.25	5,237.27	23.90	19,68	-148.15	131,16	-853.08	1,603.30	1,569.31	33.99	47.172		
5,462.74	5,300.00	5,445,98	5,300,00	23,97	19,75	-127,98	131.16	-853.08	1,603,59	1,569.44	34,15	46,958		
5,500.00	5,337,26	5,483.25	5,337.26	24.00	19.80	-127.98	131.16	-853,08	1,603,59	1,569,34	34,25	46,818		
5,600.00	5,437,26	5,583.25	5,437.26	24.10	19.92	-127.98	131.16	-853.08	1,603.59	1,569,06	34.53	46.438		
5,700.00	5,537,26	5,683.25	5,537.26	24.20	20.05	-127.98	131,16	-853,08	1,603,59	1,568,77	34.82	46.058		
5,800.00	5,637.26	5,783.25	5,637.26	24.30	20.18	-127.98	131.16	-853.08	1,603.59	1,568.48	35.10	45.681		
5,900,00	5,737,26	5,883,25	5,737,26	24,41	20,31	-127,98	131.16	-853.08	1,603.59	1,568,19	35,40	45,305		
6,000.00	5,837,26	5,983.25	5,837.26	24.51	20.45	-127.98	131.16	-853,08	1,603,59	1,567,90	35,69	44,931		
6,100.00	5,937,26	6,083.25	5,937.26	24.62	20.58	-127.98	131.16	-853.08	1,603,59	1,567,60	35.99	44.559		
6,200.00	6,037.26	6,183.25	6,037.26	24.73	20.72	-127.98	131,16	-853,08	1,603,59	1,567,30	36.29	44.190		
6,300.00	6,137.26	6,283.25	6,137.26	24,84	20,85	-127.98	131.16	-853.08	1,603.59	1,567.00	36.59	43.823		
6,400,00	6,237,26	6,383,25	6,237,26	24,95	20,99	-127,98	131.16	-853.08	1,603.59	1,566,69	36,90	43,458		
6,500.00	6,337,26	6,483.25	6,337.26	25.06	21.13	-127.98	131.16	-853,08	1,603,59	1,566,38	37,2†	43.097		
6,600.00	6,437,26	6,583.25	6,437.26	25.18	21.28	-127.98	131.16	-853.08	1,603,59	1,566,07	37,52	42.738		
6,700.00	6,537,26	6,683.25	6,537.26	25.29	21.42	-127.98	131.16	-853,08	1,603,59	1,565,75	37,84	42.381		
6,800.00	6,637.26	6,783.25	6,637.26	25.41	21.57	-127.98	131.16	-853.08	1,603.59	1,565.43	38.16	42.028		
6,900.00	6,737.26	6,883.25	6,737.26	25,53	21,71	-127.98	131,16	-853.08	1,603.59	1,565.11	38.48	41.678		
7,000,00	6,837,26	6,983,25	6,837,26	25,65	21,86	-127.98	131.16	-853,08	1,603,59	1,564.79	38,80	41,331		
7,100.00	6,937.26	7,083,25	6,937,26	25,77	22,01	-127.98	131.16	-853.08	1,603.59	1,564.46	39.12	40.987		

#### Archer Anticollision Report

TVD Reference:



Company: Project: Reference Site:

Site Error:

Berry Petroleum Company Duchesne Co., UT (UT27C)

0.00 usft

Reference Well: LC Tribal 11-18D-56

Well Error: 0.00 usft Reference Wellbore Wellbore #1 Reference Design: Design #1

Sec.18-T5S-R6W

Returned

MD Reference: North Reference: Survey Calculation Method:

> Output errors are at Database:

Offset TVD Reference:

Local Co-ordinate Reference:

Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940,00usft (Original Well Elev)

Minimum Curvature

2.00 sigma **EDMDBBW** Offset Datum

Offset De Survey Prog	ram; O-M'	MD				56 - Wellbor	re #1 - Design	#1					Offset Site Error: Offset Well Error:	0,00 us 0,00 us
Refer Measured Depth (usft)	ence Vertical Depth (usft)	Offse Measured Depth (usft)	t Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbor +N/-S (usft)	e Centre +E/-W (usft)	Dista Between Centres (usft)	nce Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,200.00 7,214.26 7,277.74	7,037.26 7,051.52 7,115,00	7,183.25 7,197.50 7,214.98	7,037.26 7,051.52 7,069.00	25.89 25.91 25.99	22.16 22.18 22.21	-127.98 -127.98 -127.98	131.16 131.16 131.16	-853.08 -853.08 -853.08	1,603.59 1,603.59 1,604.25	1,564.14 1,564.09 1,564.62	39,50	40.597		
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#### Archer Anticollision Report



Company: Project: Reference Site: Berry Petroleum Company Duchesne Co., UT (UT27C)

Sec.18-T5S-R6W

Site Error: 0.00 usft

Reference Well: LC Tribal 11-18D-56

Well Error: 0.00 usft Wellbore #1 Reference Wellbore Reference Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference;

North Reference: Survey Calculation Method:

Output errors are at

Database:

Offset TVD Reference:

Well LC Tribal 11-18D-56

WELL @ 7940,00usft (Original Well Elev) WELL @ 7940,00usft (Original Well Elev)

Minimum Curvature

2,00 sigma **EDMDBBW** 

Offset Datum

Offset De		Mariati, menerakan beradakan bera	T5S-R6W	/ - LC Triba	l 15-18D-	56 - Wellbo	re #1 - Design	#1					Offset Site Error: Offset Well Error:	0,00 usft 0,00 usft
Refer		Offse	ıt	Semî Majo	Axis				Dist	апсе			Olisat Well Ellor:	v.uv usii
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbor +N/-S (usft)	e Centre +E/-W (usft)	Between Gentres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-167.95	-19.67	-4.20	20.11	100	_			
100.00	100.00	100,00	100.00	0.00	0.09	-167.95	-19.67	-4.20	20.11	19.93	0.18	111.853		
200,00	200,00	200,00	200,00	0,31	0,31	-167.95	-19.67	-4,20	20,11	19.48	0,63	31,958 C	C, ES	
300.00	299.98	299.94	299.90	0.54	0.53	165,65	-20,12	-1,62	21.87	20,80	1.08	20,322		
400,00	399.84	399.32	398.95	0.78	0.77	152.33	-21,47	6,03	28,27	26,72	1,55	18.206 SI	•	
500.00	499.45	497.57	496.37	1.02	1.05	140.44	-23.68	18.59	40.72	38.64	2.08	19.575	4	
600.00	598,70	594.19	591.40	1.30	1.40	132.53	-26.70	35.72	59.41	56.75	2.66	22.335		
700.00	697.47	688,72	683,40	1,62	1.82	127.52	-30.45	57.05	83.95	80.65	3,30	25,458		
800.00	795.62	780.74	771.84	1,99	2,31	124,22	-34.86	82.09	113.97		4.00	28,494		
900,00	893.06	869.94	856.28	2.42	2,88	121,90	-39,83	110,34	149,12	_	4,77	31,269		
1,000.00	989.64	956.48	936.86	2.90	3.49	120.13	-45.30	141.42	189.10	1,80,50	5,61	33.736		
1,075.10	1,061.56	1,024.39	999.61	3.29	4.02	119.27	-49.81	167.01	221-16	214.88	6.28	35.205		
1,100.00	1,085,30	1,046.84	1,020,34	3.43	4.20	119.28	-51.30	175.46	231,94	5.42	6.52	35.595		
1,200.00	1,180.67	1,136,99	1,103.64	3,99	4.91	119.32	-57.28	209.43	275.20	267.74	7.47	36.847		
1,300.00 1,400.00	1,276,04 1,371.41	1,227,15 1,317.30	1,186.94 1,270.23	4,57 5.14	5,62 6.35	119,35	-63,25	277.36	343,47 331.74	310,03	8,45 9.43	37,708 38,350		
						119.37	-69,23		331.74	352.31				
1,500.00	1,466.78	1,407.46	1,353.53	5.72	7.07	119.38	-)5.21	311,33	405.01	394.58	10.43	38.832		
1,600,00	1,562,15	1,497.61	1,436.83	6.31	7.80	119,40	-81 19	345.29	448.28	436.85	11.43	39.205		
1,700.00	1,657,52	1,587.76	1,520.12	6.89	8.53	119.41	97.17	379.26	491.55	479.11	12.44	39,500		
1,800.00 1,900.00	1,752,90 1,848.27	1,677,92 1,768,07	1,603,42 1,686,72	7,48 8,07	9,26 9,09	119.42 119.43	-93.15 -99.13	413.23 447.19	534,82 578,09	521.36 563.62	13.46 14.48	39.738 39.934		
,,	1,0 (0.2)	,,,	1,000,75	5,27			90110	7,1110	0,0,00	000,02	11110	00,001		
2,000.00	1,943.64	1,858.22	1 <mark>,7</mark> 70,01	8,66	10.73	119,43	-105.11	481.16	621.36	605,86	15,50	40,097		
2,100.00	2,039.01	1,948.38	1,853,31	9,25	11.46	119,44	-111,09	515,12	664,63	648,11	16,52	40,235		
2,200,00	2,134.38	2,038.53	1,936.61	9.84	12.19	119.45	-117.07	549.09	707.90	690.36	17.54	40.352		
2,300.00	2,229,75	2,128.69	2,019,90	10.43	12.93	119.45	-123.05	583.06	751.17	732.60	18.57	40.453		
2,400.00	2,325,12	2,218,84	2,103,20	11,03	13,66	119,45	-129,02	617,02	794.44	774.84	19,60	40,541		
2,500.00	2,420,49	2,300,89	2,186,49	11.62	14.40	119.46	-135.00	650.99	837.71	817.09	20.62	40.618		
2,600.00	2,515,86	2,399.15	2,269,79	12,21	15,13	119.46	-140,98	684,95	880,98	859,33	21,65	40,686		
2,700.00	2,611.23	2,489.30	2,353.09	12.81	15.87	119.46	-146.96	718.92	924.25	901.57	22.68	40,746		
2,800,00 2,900.00	2,706.60 2,801.97	2,579.46 2,669,61	2,436.38 2,519,68	13.40 13.99	16.60 17.34	119,47 119,47	-152,94 -158,92	752.89 786.85	967,52 1,010.79	943,80 986,04	23.71 24.75	40,799 40,847		
2,000.00	2,001,01	2,000,01	2,0 (0,00	10.00	17.04	110.41	-100.02	100.00	1,010.10	000.04	24.70	10.017		
3,000.00	2,897.34	2,759,76	2,602.98	14.59	18.07	119.47	-164.90	820.82	1,054.06		25.78	40.891		
3,100.00		2,849,92	2,686,27	15.18	18.81	119.47	-170,88	854,78	1,097.33	1,070.52	26.81	40,930		
3,200.00	3,088.08	2,940.07	2,769,57	15.78	19,55	119.48	-176.86	888,75	1,140,60	1,112.75	27.84	40,965		
3,300,00 3,400.00	3,183.45 3,278,83	3,030.23 3,120,38	2,852.87 2,936.16	16,37 16,97	20.28 21.02	119,48 119,48	-182,84 -188,82	922,72 956.68	1,183,87 1,227,14	1,154.99 1,197.23	28,88 29,91	40,998 41.028		
0,100.00	0,2,0,00	5, 120,00	2,030,10	10.01	21,02	110.40	- 100.02	300.00	1,663.44	1,101.20	20.01	-1.060		
3,500.00	3,374.20	3,210.53	3,019.46	17.56	21.76	119.48	-194.80	990.65	1,270.41	1,239.46	30.94	41.055		
3,600.00	3,469,57	3,300,69	3,102,75	18,16	22,49	119.48	-200,77	1,024.62	1,313.68	1,281,70	31,98	41.080		
3,700.00	3,564.94	3,390.84	3,186.05	18,75	23.23	119.48	-206.75	1,058,58	1,356,95	1,323,93	33,01	41.103		
3,712,53	3,576.88	3,402.14	3,196.49	18.83	23,32	119,48	-207.50	1,062.84	1,362.37	1,329,22	33,14	41,106		
3,800.00	3,660,51	3,481.14	3,269,48	19,28	23.97	119.82	-212.74	1,092.60	1,399.92	1,365.83	34.08	41.073		
3,900.00	3,756,57	3,571.77	3,353.22	19.73	24.71	120.13	-218.75	1,126.75	1,442.11	1,407.03	35.09	41.102		
4,000.00		3,662,73	3,437,26	20,15	25.45	120,38	-224.79	1,161.02	1,483,52		36,07	41.126		
4,100.00	3,950.08	3,753.98	3,521.57	20.56	26.20	120.56	-230,84	1,195,40	1,524.13		37.04	41.149		
4,200,00		3,845.50	3,606.13	20.95	26.94	120.68	-236.91	1,229.88	1,563.95		37,99	41,172		
4,300.00	4,145,23	3,937.25	3,690,90	21,32	27,69	120.75	-242.99	1,264.45	1,602.98	1,564.07	38.91	41.197		
4,400.00	4,243,35	4,048.10	3,793.49	21.66	28.50	120.70	-250.27	1,305.79	1,641.00	1,601.14	39.86	41.174		
4,500.00		4,186,06	3,922,65	21,99	29,35	120,78	-258,67	1,353,53	1,676,16		40.81	41,070		
4,600.00		4,327,56	4,056,85	22,29	30,13	120,48	-266,45	1,397,69	1,707.95		41.71	40,947		
4,700.00			4,195,79	22,57	30,84	120,41	-273,50	1,437,78	1,736,24		42,55	40,806		
4,800,00	4,638.74	4,620.13	4,339.08	22.83	31.47	120.35	-279.76	1,473.31	1,760.93		43.32	40.651		
/ ppo c=	4 = 4 = 4 =	1	4 400 0	** **	pa a-	400.00	****			4 707		10 100		
4,900.00	4,738.17	4,770.53	4,486.24	23.07	32.02	120.32	-285.14	1,503.85	1,781.90	1,737.89	44.01	40.486		

#### Archer

#### Anticollision Report



Company: Project: Berry Petroleum Company Duchesne Co., UT (UT27C)

Reference Site: Sec. 18-T5S-R6W

Site Error: 0,00 usft

Reference Well: LC Tribal 11-18D-56

Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Design #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Output errors are at Database:

Offset TVD Reference:

Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

True

Minimum Curvature

2,00 sigma EDMDBBW

Offset Datum

Offset De			T5S-R6W	- LC Triba	l 15-18D-	56 - Wellbo	re #1 - Design i	#1					Offset Site Error:	0.00 us
Survey Prog Refer		WD Offs	et	Semi Major	Axis				Dista	ance			Offset Well Error:	0.00 us
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore	e Centre +E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usit)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,000.00	4,837,77	4,923,18	4,636,73	23.28	32,48	120,31	-289,56	1,528,99	1,799.08	1,754.45	44.63	40,309		
5,100.00	4,937.51	5,077.63	4,789.92	23.47	32.86	120.32	-292.97	1,548.37	1,812.38	1,767.21	45,17	40,122		
5,200.00	5,037.36	5,233.42	4,945.10	23.64	33.14	120.36	-295.32	1,561.73	1,821.74	1,776.11	45.63	39.925		
5,300.00	5,137.29	5,390.05	5,101.55	23.78	33.34	120.41	-296.58	1,568.86	1,827.13	1,781.12	46.01	39.713		
5,400,00	5,237,27	5,525,78	5,237,27	23,90	33,45	120,47	-296,80	1,570.11	1,828,74	1,782,45	46,29	39,504		
5,462.74	5,300.00	5,588.51	5,300.00	23,97	33,49	140,67	-296,80	1,570.11	1,828,92	1,782.49	46,43	39.393	4	
5,500.00	5,337.26	5,625.77	5,337.26	24.00	33.52	140.67	-296.80	1,570,11	1,828.92	1,782.42	46.50	39 (33)		
5,600,00	5,437,26	5,725.77	5,437.26	24,10	33,59	140.67	-296.80	1,570.11	1,828,92	1,782.21	46.71	39,158	,	
5,700.00	5,537.26	5,825.77	5,537.26	24.20	33.67	140.67	-296.80	1,570.11	1,828.92	1,782.00	46.91	38,985		
5,800.00	5,637,26	5,925,77	5,637,26	24.30	33.74	140,67	-296,80	1,570.11	1,828.92	1,781.79	47.12	38,811		
5,900.00	5,737,26	6,025.77	5,737,26	24.41	33.82	140.67	-296,80	1,570.11	1,828,92		47, 4	38,635		
6,000.00	5,837.26	6,125.77	5,837,26	24.51	33,90	140,67	-296,80	1,570.11	1,828,92	1,781.36	47,56	38,459		
6,100.00	5,937,26	6,225.77	5,937,26	24,62	33,98	140,67	-296,80	1,570,11	1,828,92	1,781,14	47,78	38.281		
6,200.00	6,037.26	6,325.77	6,037.26	24.73	34.06	140,67	-296.80	1,570.11	1,828.92	1,780.92	48.00	38.102		
6,300,00	6,137.26	6,425.77	6,137.26	24.84	34.14	140.67	-296.80	1,579.71	1,828.92	7,780.69	48.23	37.923		
6,400,00	6,237,26	6,525.77	6,237.26	24.95	34.23	140.67	296,80	1,570.11	1,828,92	1,780.46	48.46	37.743		
6,500.00	6,337,26	6,625,77	6,337,26	25.06	34.31	140.67	-295,80	1,570.11	1,828,92	1,780.23	48.69	37,562		
6,600.00	6,437,26	6,725,77	6,437,26	25,18	34,40	140,67	-296 80	1,570,11	1,828,92	1,779,99	48,93	37,381		
6,700.00	6,537.26	6,825.77	6,537.26	25.29	34.49	140.67	296.80	1,570.11	1,828.92	1,779.75	49.17	37.199		
6,800,00	6,637.26	6,925.77	6,637.26	25.41	34.58	140.67	-296.80	1,570,11	1,828.92	1,779.51	49.41	37.017		
6,900,00	6,737.26	7,025.77	6,737.26	25.53	34,67	140.67	-296.80	1,570.11	1,828.92	1,779.26	49.65	36.834		
7,000.00	6,837.26	7,125.77	6,837.26	25.66	34.76	140.67	-296.80	1,570.11	1,828.92	1,779.02	49.90	36.651		
7,100,00	6,937,26	7,225.77	6,937,26	25.77	34,85	140.67	-296,80	1,570.11	1,828,92	1,778.77	50.15	36,468		
7,200.00	7,037,26	7,325,77	7,037,26	25,89	34.95	140.67	-296.80	1,570.11	1,828,92	1,778.51	50.41	36.284		
7,277.74	7,115.00	7,403.51	Z-115.00	25,99	35,02	140,67	-296,80	1,570,11	1,828,92	1,778,31	50,60	36,142		



#### Archer Anticollision Report



Company: Project: Reference Site: Berry Petroleum Company Duchesne Co., UT (UT27C) Sec.18-T5S-R6W

0,00 usft

Site Error: LC.Tribal 11-18D-56 Reference Well:

Well Error: Reference Wellbore Reference Design:

0.00 usft Wellbore #1 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

**Survey Calculation Method:** Output errors are at

Database: Offset TVD Reference: Well LC Tribal 11-18D-56

WELL @ 7940,00usft (Original Well Elev) WELL @ 7940.00usft (Original Well Elev)

Minimum Curvature

2.00 sigma **EDMDBBW** 

Offset Datum

Reference Depths are relative to WELL @ 7940,00usft (Original Well E

Offset Depths are relative to Offset Datum

Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: LC Tribal 11-18D-56

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

Grid Convergence at Surface is: 0.57°



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#### Archer Anticollision Report

TVD Reference:



Company: Project: Reference Site: Duchesne Co., UT (UT27C) Sec,18-T5S-R6W.

0.00 usft

Site Error: Reference Well: LC Tribal 11-18D-56

Well Error: 0.00 usft Reference Wellbore Wellbore #1 Reference Design: Design #1

Berry Petroleum Company

MD Reference: North Reference:

> Survey Calculation Method: Output errors are at

Local Co-ordinate Reference:

Database: Offset TVD Reference: Well LC Tribal 11-18D-56

WELL @ 7940.00usft (Original Well Elev) WELL @ 7940,00usft (Original Well Elev)

Minimum Curvature

2.00 sigma **EDMDBBW** 

Offset Datum

Reference Depths are relative to WELL @ 7940.00usft (Original Well E

Offset Depths are relative to Offset Datum

Central Meridian is 111° 30' 0,000 W

Coordinates are relative to: LC Tribal 11-18D-56

Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302

Grid Convergence at Surface is: 0,57°



#### AFFIDAVIT OF SURFACE DAMAGE AGREEMENT

SHAWN HAWK, the Affiant herein, is a Production Superintendent for Berry Petroleum Company, a Delaware corporation, with an office located at 4000 S 4028 W, Rt 2 Box 7735, Roosevelt, Utah 84066, being of lawful age and duly sworn upon his oath and being duly authorized to make this affidavit on behalf of said corporation hereby deposes and states to the best of his knowledge as follows:

That Berry Petroleum Company has a Surface Damage Agreement signed by the current surface owner covering the following described property, hereinafter referred to as the Land:

### TOWNSHIP 5 SOUTH, RANGE 6 WEST, USB&M Section 18 SE ¼ SW ¼

Affiant further states said Surface Damage Agreement GRANTS, SELLS, and CONVEYS unto Berry Petroleum Company an easement for ingress and egress to, along with a right to use, that portion of the herein described property as may be necessary to construct, use, and maintain a well site or well sites (including location of additional wells on each well site in the case of directional or horizontal drilling) for the drilling, completion and operation of an oil and gas well or wells (including but not limited to pumping facilities and tank batteries) over, under and through the herein described Land.

Affiant further states said Surface Damage Agreement GRANTS, SELLS, and CONVEYS unto Berry Petroleum Company the right to construct, entrened, maintain, operate, replace, remove, protect, or abandon a pipeline or pipelines for valer or gas with appurtenances thereto, including, but not limited to, valves, metering equipment, and cathodic equipment; to construct, maintain, relocate, or abandon a road (said well sites, pipelines, appurtenance, valves, metering equipment, cathodic equipment and road being sometimes collectively call the "facilities") over, under, and through the herein described Land.

Executed and effective as of this 5th day of April 2013.

Berry Petroleum Company

Shawn Hawk

Field Landman

Page 1 of 1

#### SURFACE USE PLAN of OPERATIONS

#### Attachment for Permit to Drill:

Name of Operator: Berry Petroleum Company

**Address:** 4000 South 4028 West/Rt. 2 Box 7735

Roosevelt, Utah 80466

Well Location: LC Tribal 11-18D-56

Surface: 808' FSL & 1412' FWL Target: 1926' FSL & 1829' FWL SE/4SW/4 of Sec. 18, T5S, R6W

The surface owner or surface owner representative and dirt contractor will be proved with an approved copy of the surface use plan of operations and approved conditions of approval before initiating construction.

The onsite inspection for the referenced well was conducted per UDOGM.

#### A Existing Roads

To reach the Berry Petroleum Company well, LC Tribal 11-18D-56, in Section 18-T5S-R6W:

The proposed well site is approximately 20.2 miles southwest of Duchesne, Utah.

Proceed in a southerly direction from Duchesne, Utah long US Highway 191 for approximately 3.5 miles to the junction of this road and an existing road to the west. Turn right and proceed in a westerly direction for approximately 6.5 miles to the junction of this road and an existing road to the southeast. Turn left and proceed in a southeasterly thence southwesterly direction for approximately 7.2 miles to the junction of this road an existing road to the southwest. Turn left and proceed in a southwesterly direction for approximately 0.4 miles to the junction of this road and an existing road to the northeast. Turn right and proceed in a northeasterly direction for approximately 0.3 miles to the beginning of the propose backess road to the southwest. Follow the road flags in a southwesterly, thence northwesterly direction, meandering on an off an existing jeep trail for approximately 12,161 feet (2.3 miles) to the proposed LC Tribal 11-18D-56, 13-18D-56 and 15-18D-56 location.

Berry Petroleum Company will improve or maiotain existing roads in a condition the same or better than before operations began. Best Management Practices will be considered when improving or maintaining existing roads. In general this would have the need for some surface material or fill to prevent or repair holes in the road due to heavy a tick to a be during the drilling and completion operations. If repairs are made the operator will recurse the appropriate material from private sources.

#### B New or Reconstructed Access Roads

See Topographic Map "A & B" for the location of the proposed access road. Berry Petroleum Company will construct a new access road for approximately 12,161 feet (2.3 miles) to the proposed LC Tribal 11-18D-56, 13-18D-56 & 15-18D-56 location.

LC Tribal 11-18D-56 4/10/2013

Page 1

#### C Location of Existing Wells

See Topographic Map "D" for the location of existing wells within a 1mile radius.

#### Location of Tank Batteries, Production Facilities and Production Gathering and Service D Lines

A containment dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). This dike will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank. The site specific APD will address additional capacity if such is needed due to environmental concerns. The use of topsoil for the construction of dikes will not be allowed. If a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required by the Environmental Protection Agency, the containment dike may be expanded with the Authorized Agency Officer's approval to meet SPCC requirements.

The proposed pipeline will tie in at an existing pipeline. Map "C" illustrating the proposed route is attached. The proposed pipeline will be 4"-6" polypipe and be placed above ground. The pipeline will run in the same corridor as the above proposed access road.

All site security guidelines identified in Federal regulation 43 CFR 3126.7, will be adhered to. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease production will have prior written approval form the Authorized Agency Officer.

Gas meter runs will be located approximately 100 feet from the wellhead. Where necessary, the gas line will be anchored down from the wellhead to the meter.

#### E

Water for the drilling and completion will be pumped or trucked from one of the following Berry source wells:

• Water Permit # 43-12400, Sec. 23, T5S, R5W
• Water Permit # 43-12400, Sec. 24, T5S, R5W
• Water Permit # 43-1221, Sec. 30, T3S, R8W
• Water Permit # 43-1226, Sec. 30, T3S, R8W

- Water Permit # 43-1627, Sec. 30, T3S, R8W
- Water Permit # 43-1628, Sec. 12, T5S, R6W (Pouglas ordis Nielsen)
- 1, T4S, R5W Duchesne City Culinary Water Dock located in Se
- East Duchesne Water, Arcadia Feedlot, Se 38
- nt, Sec. 8, T5S, R3W. Petroglyph Operating Company 08-04 N

#### F Source of Construction Materials

All construction materials of this ocation site and access road shall be borrow material accumulated during the construction of ation site and access road.

Additional gravel or pit lining material will be obtained from a private source.

The use of materials under Authorized Agency jurisdiction will conform to 43 CFR 3610.2-3.

#### G Methods of Handling Waste Materials

Drill fluids will be contained in a closed loop system. Cuttings will be contained on site and buried in a pit or used on location and/or access roads, whichever is deemed appropriate by the authorized agency.

LC Tribal 11-18D-56 4/10/2013

After first production, produced wastewater from Berry Petroleum Company wells will be used for injection in our enhanced oil recovery project(s) in the Brundage Canyon Field or they will be trucked to one of the following approved waste water disposal sites:

- R.N. Industries, Inc. Sec. 4, T2S, R2W, Bluebell
- MC & MC Disposal Sec. 12, T6S, R19E, Vernal
- LaPoint Recycle & Storage Sec. 12, T5S, R19E, LaPoint
- Water Disposal Inc. Sec. 32, T1S, R1W, Roosevelt
- ITL 4461 W 3000 So Roosevelt Location Pleasant Valley
- IWM PO Box 430 Altamont or 20250 W 2000 S Duchesne Location Blue Bench
- Pro Water 12223 Highland Ave Ste B503 Rancho Cucamonga CA 91739 Location Blue Bench

Should operations of the field be prohibited by the Authorized Officer, the wastewater shall be confined to the approved pit or storage tank for a period not to exceed 90 days. The use of such pit is hereby approved as part of this Application for Permit to Drill.

Production fluids will be contained in leak-proof tanks. All production fluids will be disposed of at approved disposal sites. Produced water, oil, and other byproducts will not be applied to roads or well pads for control of dust or weeds. The indiscriminate dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical portable toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location.

All debris and other waste materials not contained in the trash cage will be cleaned up and removed from the location promptly after removal of the completion rig (weather permitting).

Any open pits will be fenced during the operations. The fencing will be maintained with best efforts until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (h. zardous materials) in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing (f.wells: Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantiles, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of wells within these areas.

#### H Ancillary Facilities

There are no ancillative lities planned for at this time and none are foreseen in the future.

#### I Well site Layout

The attached Location Layout diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpile(s)

LC Tribal 11-18D-56 4/10/2013

#### J Plans for Restoration of the Surface

#### Interim

The dirt contractor will be provided with approved copies of the Surface Use Plan prior to construction activities.

Upon well completion, within a reasonable time, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions may include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and the re-establishment of vegetation as specified.

All disturbed areas will be re-contoured to the approximate natural contours.

Any drainage rerouted during the construction activities shall be restored to its original line of flow or as near as possible.

All areas of disturbance (including surface pipelines) must have appropriate surface use agreements or approvals in place with the proper owner and/or agency before such action is started.

The conditions of approval, as set forth by those owners and/or agencies, shall be adhered to.

Interim Reclamation consisting of minimizing the footprint of disturbance shall be accomplished by reclaiming all portions of the well site not needed for safe production operations. The portions of the well site not needed for operational and safety purposes will be recontoured to a final appearance that blends with the surrounding topography. Topsoil will be spread over these areas. The operator will spread the topsoil over the entire location except where an all-weather surface, access route or turnaround is needed. Production facilities should be clustered or placed offsite to maximize the opportunity for interim reclamation. Any incidental use on interim reclamation may require restoration of damage. This may require recontouring and seeding of the damaged area.

Paint all production facilities and equipment, not otherwise regulated (OSHA, to), Turna Green.

Install Hospital muffler to the Pump-jack to minimize engine nois

#### **Final**

Prior to the construction of the location, the total pinches of soil material (if present) will be stripped and stockpiled. Placement of the topsoil it noted on the location plat attached. Topsoil shall be stockpiled separately from subsoil materials. Topsoil salvaged from the reserve pit shall be stockpiled separately near the reserve pit.

When restoration acceptates have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas, including the old access road will be scarified and left with a rough surface.

The Authorized Agency Officer shall be contacted for the required seed mixture. Seed will be broadcast and the amount of seed mixture per acre will be doubled. The seeded area will then be "walked" with a dozer to assure coverage of the seeds. The seed mixture will reflect the recommendation from the Archeology study done.

LC Tribal 11-18D-56 4/10/2013

At final abandonment, all casing shall be cut off at the base of the cellar or 3 feet below final restored ground level, whichever is deeper, and cap the casing with a metal plate a minimum of 0.25 inches thick. The cap will be welded in place and the well location and identity will be permanently inscribed on the cap. The cap also will be constructed with a weep hole.

#### K Well Surface & Access Ownership:

Division of Wildlife Resources 1594 West North Temple, Ste 2110 Salt Lake City, Utah 84114 Local Contact: Ben Williams - (435) 823-0946

#### L Other information

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

Berry will control noxious weeds along access road use authorizations, pipeline route authorizations, well sites or other applicable facilities. A list of noxious weeds may be obtained from the Authorized Agency or the appropriate County Extension Office.

Drilling rigs and/or equipment used during drilling operations on this location will not be stacked or stored on administered lands after the conclusion of drilling operations or at any other time without authorization by the Authorized Agency Officer. If authorization is obtained, such storage is only a temporary measure.

Outlaw Engineering Inc. has conducted a Class I archaeological survey. A copy of this report has been submitted under separate cover by Outlaw Engineering Inc. to the appropriate agencies.

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submitted under separate cover by Outlaw Engineering Inc. to the appropria

All personnel will refrain from collecting artifacts and from disturbing any significant cultural resources in the area. The operator is responsible for informing all persons in the area who are associated with this project that they may be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. All vehicular traffic, person a thovement, construction, and restoration activities shall be confined to the areas examined, as referenced in the archaeological report, and to the existing roadways and/or evaluated access routes. Thistoric or archaeological materials are uncovered during construction, Berry Petroleum Company is to immediately stop work that might further disturb such materials and contact the Authorized Agency Officer.

Within five working bys, the Authorized Agency Officer will inform the operator as to:

- Whether the materials appear eligible for the National Historic Register of Historic Places;
- The mitigation measures Berry will likely have to undertake before the site can be used (assuming in-situ preservation is not necessary); and a time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that the mitigation measures are appropriate.

LC Tribal 11-18D-56 4/10/2013

If Berry wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Agency Officer and/or the surface owner will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise the operator will be responsible for mitigation costs. The Authorized Agency Officer and/or the surface owner will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Agency Officer that required mitigation has been completed, Berry will then be allowed to resume construction.

All Surface Use Conditions of Approval associated with the Landowner Surface Use Agreement and Environmental Analysis Mitigation Stipulations will be adhered to.

All well site locations will have appropriate signs indicating the name of the operator, the lease serial number, the well name and number, the survey description of the well (footages or the quarter/quarter section, the section, township, and range).

#### M. Air Emissions Analysis

Table 4-1.

**Proposed Action Annual Emissions** 

(tons/year)<sup>1</sup>

Pollutant	Development	Production	Total	
NO <sub>x</sub>	5.7	8.1	13.8	
CO	3.9	7.5	11.4	
VOC	1.5	59.7	60.6	
SO <sub>2</sub>	0.009	0.42	0.429	
PM <sub>10</sub>	2.7	0.78	3.48	12
PM <sub>2.5</sub>	0.9	0.78	1.68	
Benzene	0.03	0.3	0.33	roved
Toluene	0.012	0.606	0.618	
Ethylbenzene	0.003	0.582	9,585 9,99	
Xylene	0.009	0.981	0.99	
n-Hexane	0	3.21	3.21	
Formaldehyde	0.09	0.489	0.579	
<sup>1</sup> Emissions include 3 producing well and associated operations traffic during the year in which the project is developed.	eturn			

<sup>&</sup>lt;sup>1</sup> Emissions include 3 producing well and associated operations traffic during the year in which the project is developed.

LC Tribal 11-18D-56 4/10/2013

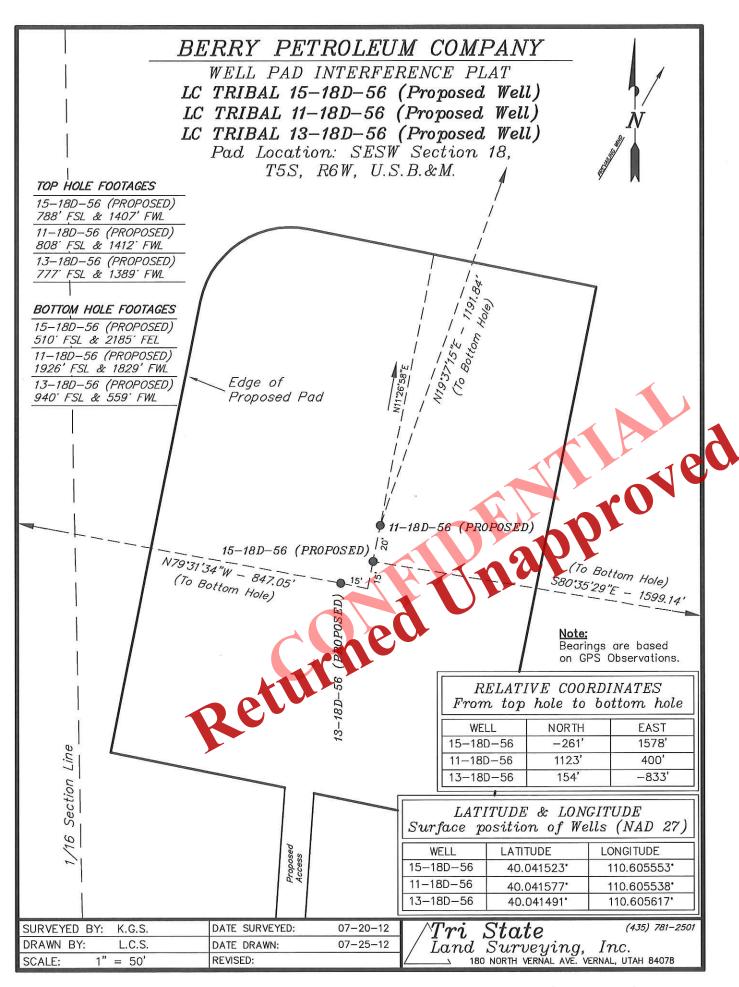
#### BERRY PETROLEUM COMPANY

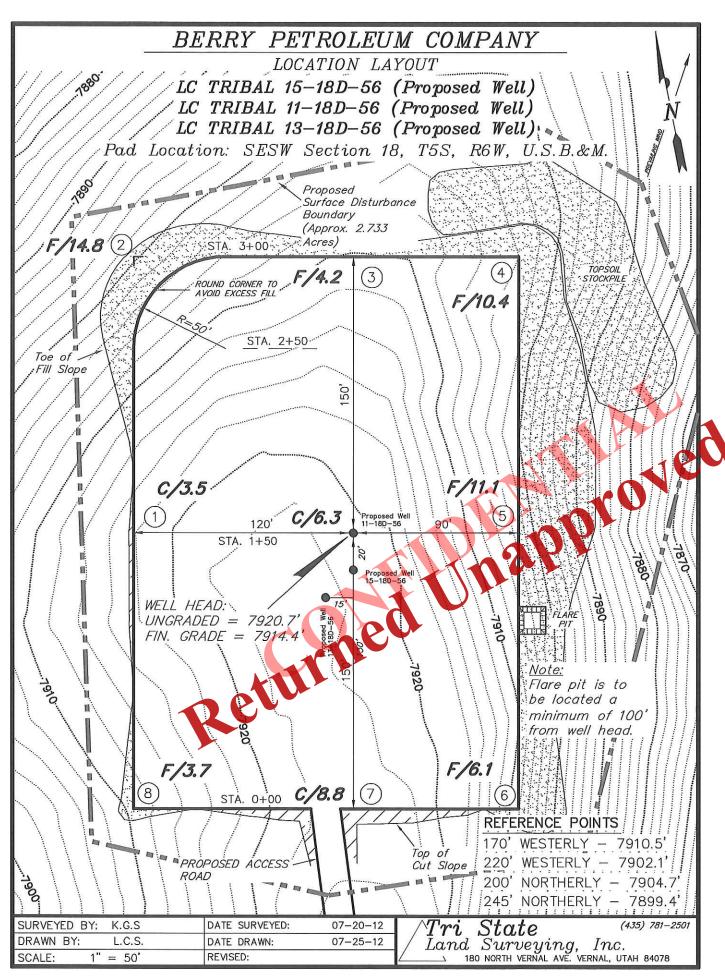
### LC TRIBAL 15-18D-56, 13-18D-56 & 11-18D-56 (Proposed Wells)

**SECTION 18, T5S, R6W, U.S.B.&M.** 

PROCEED IN A SOUTHERLY DIRECTION FROM DUCHESNE, UTAH ALONG U.S.
HIGHWAY 191 APPROXIMATELY 3.5 MILES TO THE JUNCTION OF THIS ROAD AND
AN EXISTING ROAD TO THE WEST; TURN RIGHT PROCEED IN A WESTERLY
DIRECTION APPROXIMATELY 6.5 MILES TO THE JUNCTION OF THIS ROAD AND AN
EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A
SOUTHEASTERLY THENCE SOUTHERLY THENCE SOUTHWESTERLY DIRECTION
APPROXIMATELY 7.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING
ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY
DIRECTION APPROXIMATELY 0.4 MILES TO THE JUNCTION OF THIS ROAD AND AN
EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A
NORTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF
THE PROPOSED ACCESS ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A
SOUTHWESTERLY; THENCE NORTHWESTERLY DIRECTION, MEANDERING ON
AND OFF AN EXISTING JEEP TRAIL, APPROXIMATELY 12,161' (2.3 MILES) TO THE
PROPOSED LOCATION FOR THE LC TRIBAL 15-18D-56, 13-18D-56, & 11-18D-56,

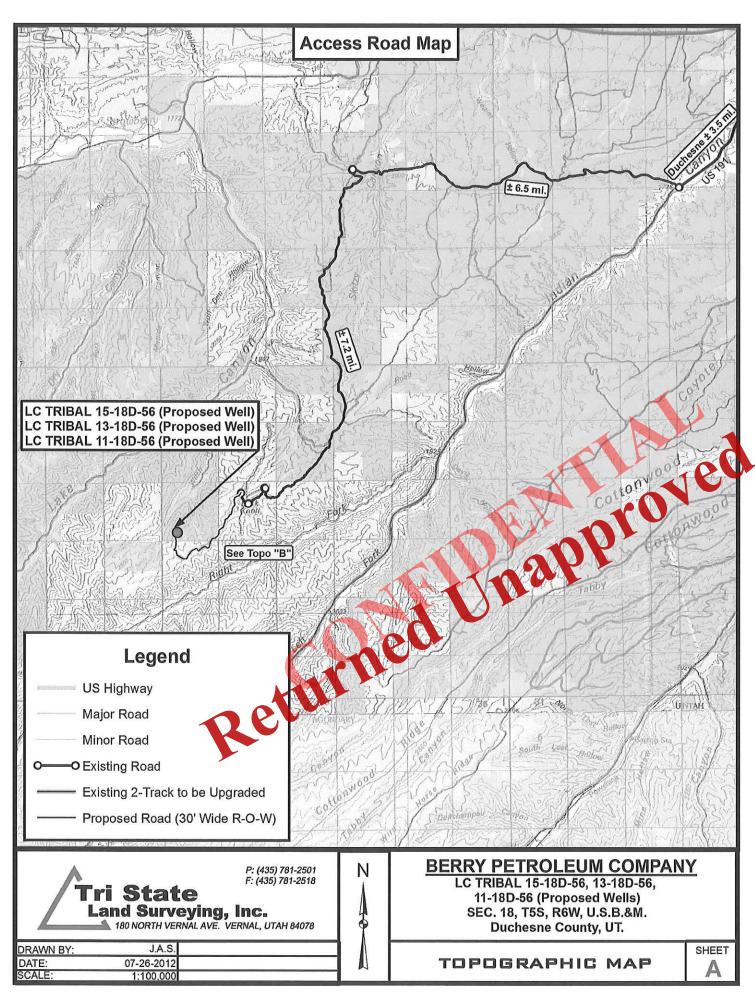
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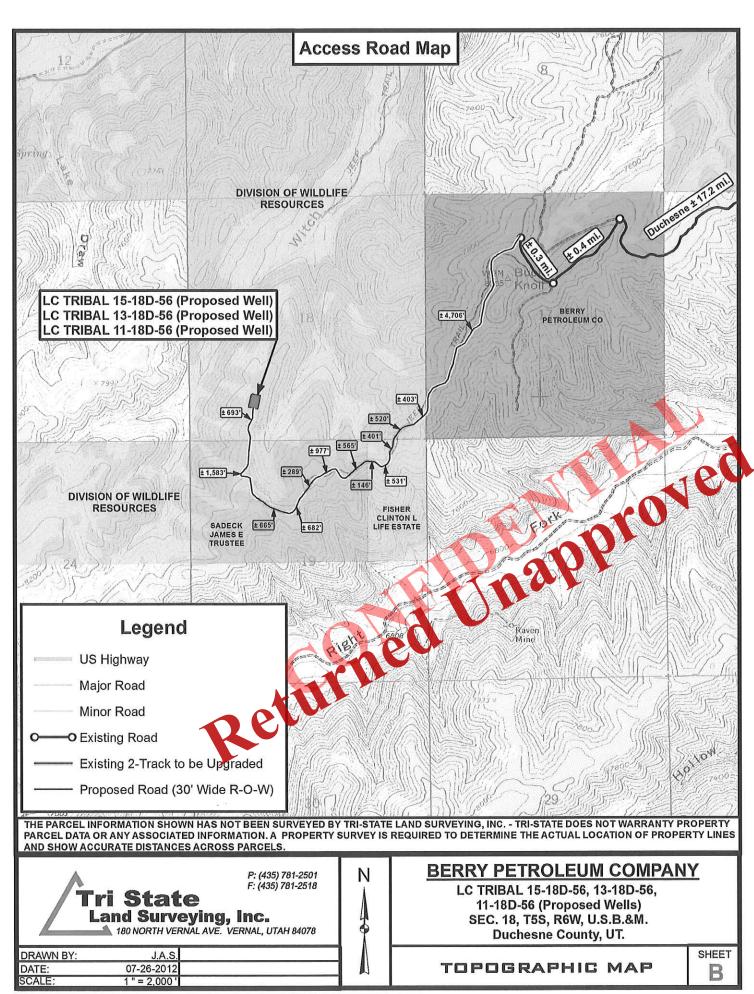


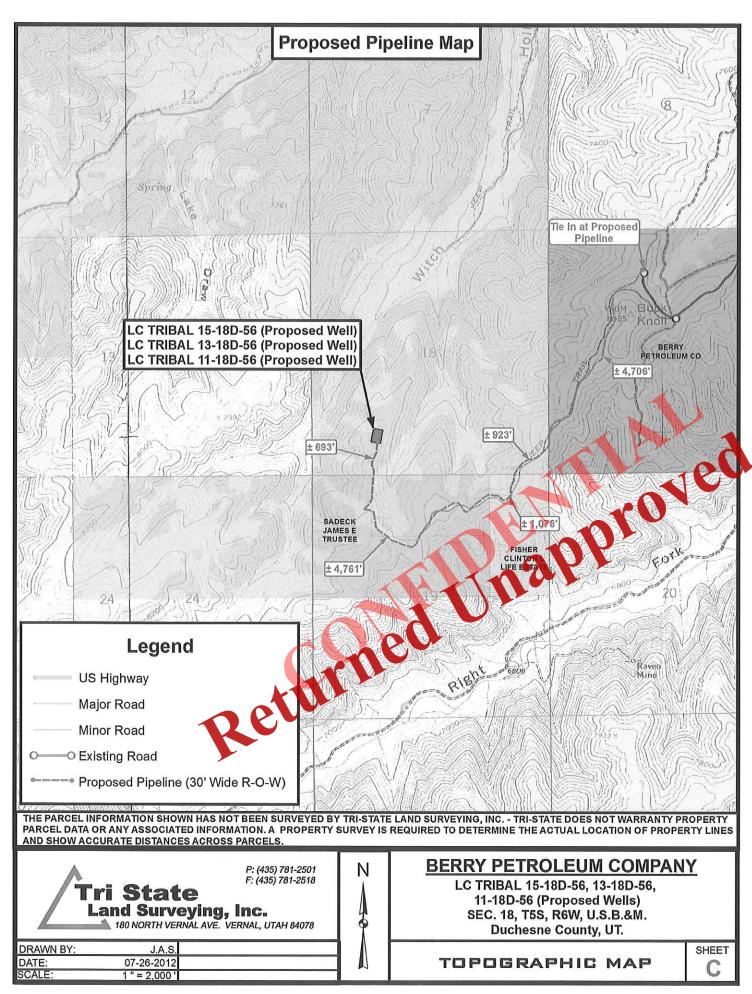


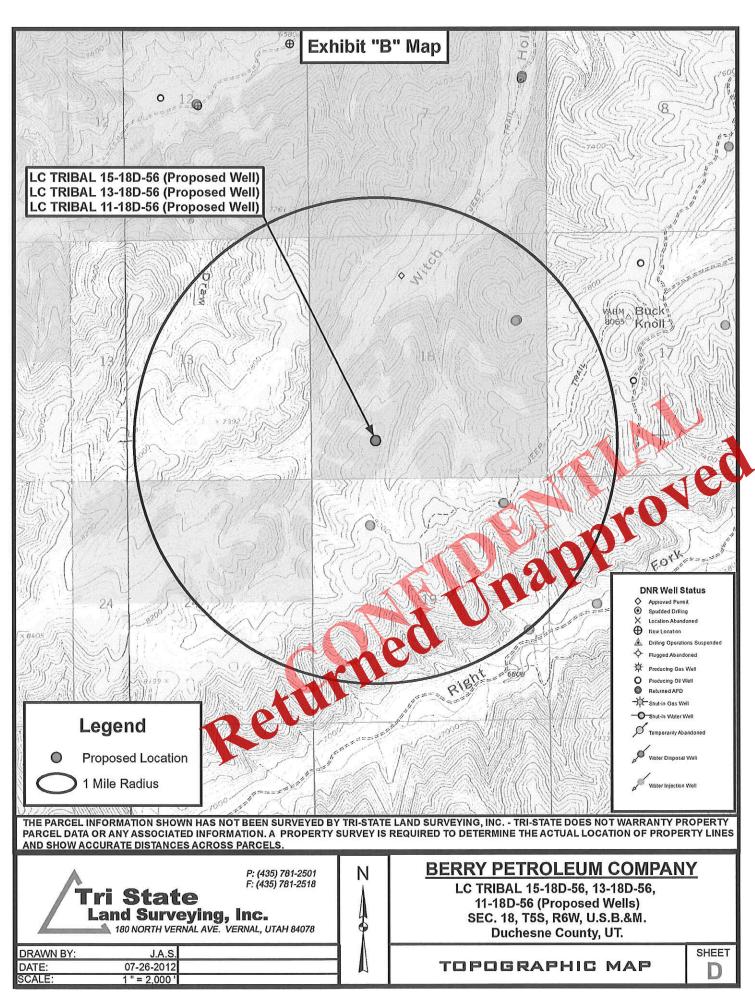
#### BERRY PETROLEUM COMPANY CROSS SECTIONS LC TRIBAL 15-18D-56 (Proposed Well) LC TRIBAL 11-18D-56 (Proposed Well) LC TRIBAL 13-18D-56 (Proposed Well) Pad Location: SESW Section 18, T5S, R6W, U.S.B.&M. 20, 11 STA. 3+00 1" = 50'20, 11 STA. 2+50 1" = 50'EXISTING **FINISHED** GRADE 20, II WELL HEAD 1" = 50'20, П ESTIMATED EARTHWORK QUANTITIES 1" = 50'STA. 0+00 (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards) ITEM CUT FILL 6" TOPSOIL **EXCESS** 7,050 Topsoil is not included in Pad Cut PAD 7.050 NOTE: UNLESS OTHERWISE NOTED PIT 0 CUT SLOPES ARE AT 1:1 FILL SLOPES ARE AT 1.5:1 TOTALS 7,050 7,050 1,450 SURVEYED BY: DATE SURVEYED: 07-20-12 Tri State (435) 781-1. Land Surveying, Inc. 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 $\overline{Tri}$ K.G.S (435) 781-2501 07-25-12 DRAWN BY: L.C.S. DATE DRAWN: SCALE: 1" = 50'REVISED:

### BERRY PETROLEUM COMPANY TYPICAL RIG LAYOUT LC TRIBAL 15-18D-56 (Proposed Well) LC TRIBAL 11-18D-56 (Proposed Well) LC TRIBAL 13-18D-56 (Proposed Well) Pad Location: SESW Section 18, T5S, R6W, U.S.B.&M. STORAGE TANK 50, YELLOW DOG BOILER PUMP ☐ TOILET PUMP MUD TRAILERS TANK SUB TER Proposed Well 11-18D-56 120' 90' PIPE RACKS Proposed Well 13-18D-56 Note: Flare pit is to be located a minimum of 100' from well head. PROPOSED ACCESS ROAD SURVEYED BY: K.G.S DATE SURVEYED: 07-20-12 Tri State (435) 781-. Land Surveying, Inc. 180 NORTH VERNAL AVE. VERNAL, UTAH 84078 (435) 781-2501 DRAWN BY: L.C.S. DATE DRAWN: 07-25-12 SCALE: 1" = 50'REVISED:









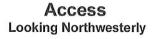
#### Location **Photos**

#### **Center Stake Looking Northwesterly**

Date Photographed: Photographed By:

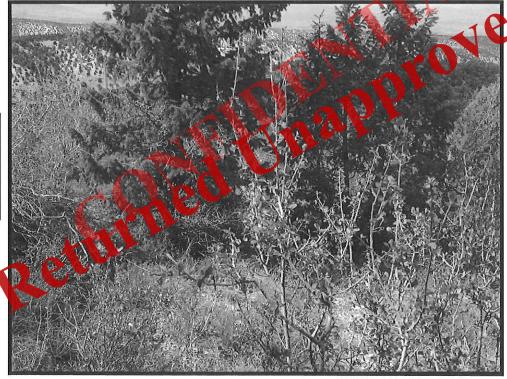
07/20/2012 K. Stewart





Date Photographed: 07/20/2012

Photographed By K. Stewart



### Tri State Land Surveying, Inc. 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501 F: (435) 781-2518

DRAWN BY: J.A.S. REVISED: DATE: 07-26-2012

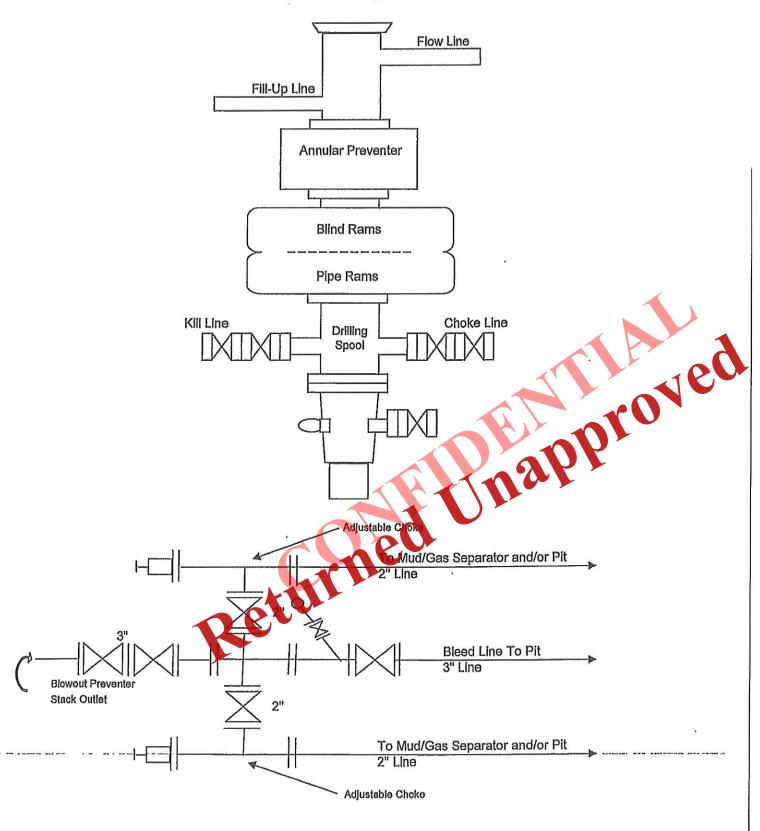
#### **BERRY PETROLEUM COMPANY**

LC TRIBAL 15-18D-56, 13-18D-56, 11-18D-56 (Proposed Wells) SEC. 18, T5S, R6W, U.S.B.&M. **Duchesne County, UT.** 

COLOR PHOTOGRAPHS

SHEET

#### SCHEMATIC DIAGRAM OF 3,000 PSI BOP STACK



#### AFFIDAVIT OF NOTICE

I, **Kathy Fieldsted**, the affiant herein, being of lawful age and duly sworn upon his oath deposes and states to the best of my knowledge as follows:

Kathy Fieldsted is a Sr Regulatory & Permitting Tech. for **Berry Petroleum Company**, a Delaware Corporation, with headquarters located at 1999 Broadway, Suite 3700, Denver, Colorado 80202, and is duly authorized to make this affidavit on behalf of said corporation. This Affidavit is made in accordance with Utah's Oil, Gas and Mining regulation R649-3-22.

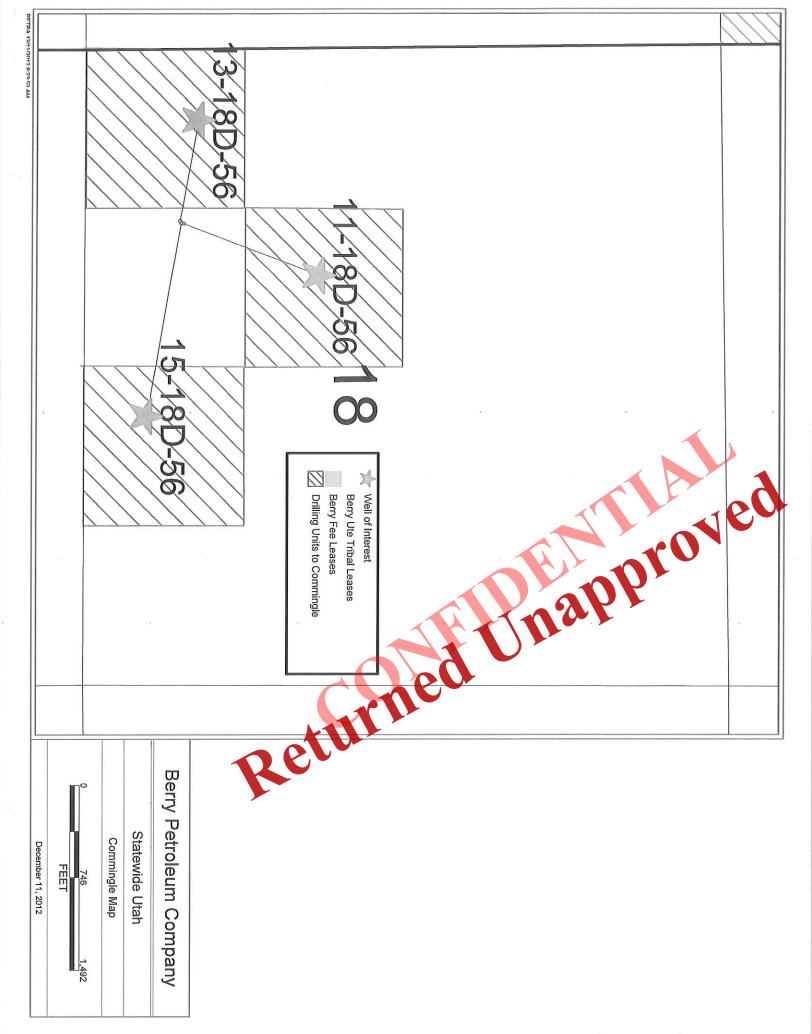
Berry Petroleum Company has submitted notices to commingle production from the Wasatch and Green River formations in the following wells:

LC Tribal 4-9D-56	LC Tribal 15-22D-57
LC Tribal 11-14D-57	LC Tribal 11-18D-56
LC Tribal 9-15D-57	LC Tribal 13-18D-56
LC Tribal 13-21D-57	LC Tribal 15-18D-56
LC Tribal 5-22D-57	

Per the terms of the Ute Tribal Lake Canyon Exploration and Development Agreement BIA Lease # 14-20-H62-5500, Berry Petroleum Company is the owner of contiguous oil and gas leases or drilling units or has the right to the minerals overlying the pool for the aforementioned wells. Notice of intent to commingle production is hereby waived.

This instrument is executed this 12<sup>th</sup> day of December, 2011

**Berry Petroleum Company** 





### **Berry Petroleum Company**

Rt 2 Box 7735 4000 S. 4028 W Roosevelt, Utah 84066 Phone (435) 722-1325 Fax (435) 722-1321

April 10, 2013

Ms. Diana Whitney State of Utah Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84115-5801

Re:

Directional Drilling R649-3-11

LC Tribal 11-18D-56

808' FSL & 1412' FWL (SESW – SHL)

1926' FSL & 1829' FWL (NESW - BHL)

Section 18, T5S-R6W Duchesne, County, Utah

Pursuant to the filing of Berry Petroleum's Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

• The LC TRIBAL 11-18D-56 \*\*\*-11 '

- Berry is locating the well at the surface location and direction and direction of dilling from this location to minimize surface disturbance and Berry will be able to utilize the existing road and pipelines in the area.
- Furthermore, Berry hereby certifies that it is the sole working interest owner with 460 feet of the entire directional well bore and the remainder of the Ute Tribal section.

Therefore, based on the above stated in ornation Berry Petroleum Company requests the permit be granted pursuant to R649-3-1

Respectfully Submitted

Krustallechan

Krista Mecham

Sr. Regulatory & Permitting Technician

#### **SELF-CERTIFICATION STATEMENT**

The following self-certification statement is provided per federal requirements dated May 7, 2007.

Please be advised that Berry Petroleum Company is considered to be the operator of the following well.

LC Tribal 11-18D-56

Section 18, T5S, R6W, U.S.B.& M.

Surface: 808' FSL & 1412' FWL (SE/4SW/4) BHL: 1926' FSL & 1829' FWL (NE/4SW/4)

Duchesne, County, Utah

Berry Petroleum Company is responsible under the terms of the lease for the operations conducted upon the lease lands.

#### Operator's Representative and Certification

A)

Representative

NAME:

Krista M. Mecham

ADDRESS:

Berry Petroleum Company 4000 South 4028 West

Route 2, Box 7735 Roosevelt, Utah 84066

PHONE:

435-722-1325

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations and onshore oil and gas orders. Berry Petroleum Company is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The drilling permit will be valid for a period of two years from the date of approval. After permit termination, a new application will be filed for approval for any future energies.

#### B) Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge and belief to de and correct; and that the work associated with the operations proposed herein will be net ormed by Berry Petroleum Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the previsions of 18 U.S.C. 1001 for the filing of a false statement.

41013 DATE

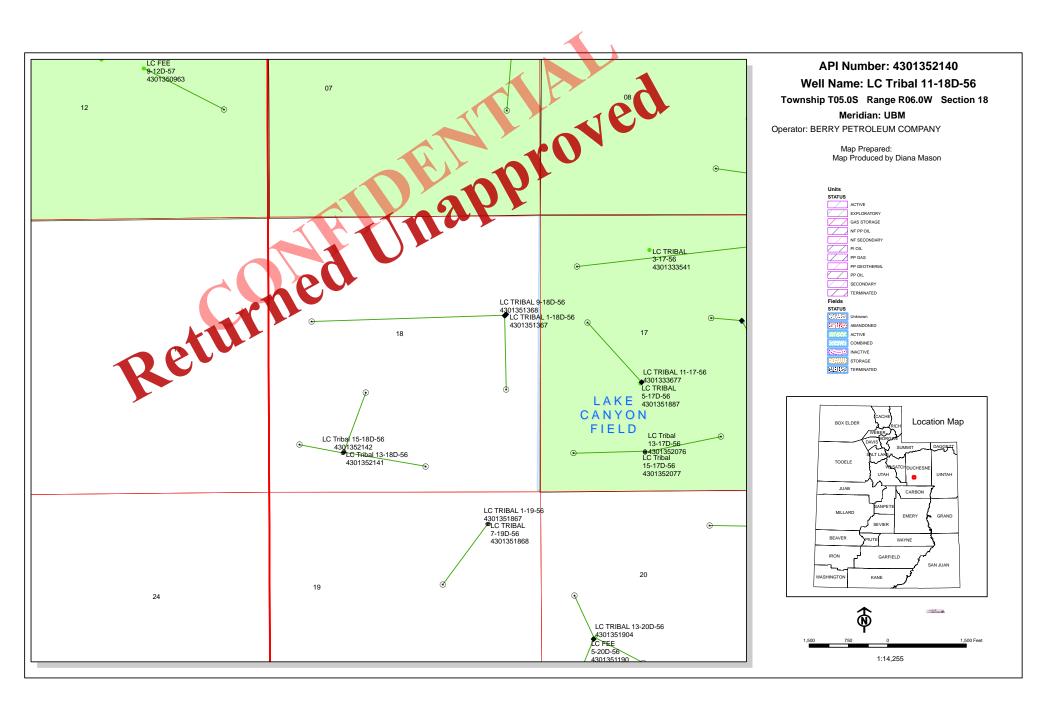
Krista M. Mecham

C. D. 1.

Sr. Regulatory & Permitting Tech.

LC Tribal 11-18D-56 – Operator Certification 4/10/2013

Page 1





Lieutenant Governor

### State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

April 14, 2015

LINN OPERATING, INC. Rt. 2 Box 7735 Roosevelt, UT 84066

Re: Application for Permit to Drill - DUCHESNE County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the LC Tribal 11-18D-56 well, API 43013521400000 that was submitted April 12, 2013 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah

